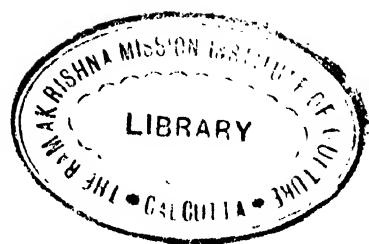


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## THE CHAIN OF JUSTICE

By H. C. RAYCHAUDHURI

Indian rulers and statesmen set much store on the speedy administration of justice. "The king," says the author of the *Kautilīya Arthaśāstra*, "should never cause his petitioners to wait at the door, for when a king makes himself inaccessible to his people and entrusts his work to his immediate officers he may be sure to engender confusion in business, and to cause thereby public disaffection."<sup>1</sup> One of the most interesting expedients adopted by an Indian ruler for affording easy access to complainants was the famous golden bell-pull provided by Jahāngīr.<sup>2</sup> The emperor himself describes the ingenious device for satisfying importunate supplicants as follows :—

"After my accession, the first order that I gave was for the fastening up of the Chain of Justice, so that if those engaged in the administration of justice should delay or practise hypocrisy in the matter of those seeking justice, the oppressed might come to this chain and shake it so that its noise might attract attention. Its fashion was this : I ordered them to make a chain of pure gold, 30 gaz in length and containing 60 bells. Its weight was four Indian maunds, equal to 42 'Irāqī maunds. One end of it they made fast to the battlements of the Shāh Burj of the fort at Agra and the other to a stone post fixed on the bank of the river" i.e. the Jumna.<sup>3</sup>

It is well known that Muḥammad Shāh in 1721 revived the curious expedient of his famous ancestor<sup>4</sup> and "ordered that a bell should be made fast to a long chain, and the chain hung down on the outside of the Octagon tower that looked towards the water side, to put it in the power of any one who should think himself oppressed, and could not find admittance at the gate of the castle, to repair to the chain and to ring the bell."

Du Jarric says that in providing the chain of justice Jahāngīr was following the idea of an old king of Persia.<sup>5</sup> Elphinstone, however,

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1. *Arthaśāstra*, Book I, Chapter xix (trans. by Dr. Shama Sastry).

2. Elphinstone, *The History of India*, p. 539; Smith, *The Oxford History of India*, p. 375.

3. Rogers and Beveridge, *Tūzuk-i-Jahāngīrī*, Vol. I. p. 7.

4. *Seir Mutaqherin*, Vol. I. p. 230.

5. Rogers and Beveridge, *Tūzuk*, Vol. I. 7 n

refers to Jahāngīr's measure as an "invention"<sup>6</sup> apparently of that emperor himself. But we have earlier instances of the adoption of similar expedients by preceding rulers of India including lands in the Far South. Ibn Batuta, for example, refers to an analogous device adopted by Iltutmish. We are told that the king "made an order that any man who suffered from injustice should wear a coloured dress (in the place of the white clothes that were in ordinary use). But he was not satisfied with this plan. So he placed at the door of his palace two marble lions upon two pedestals which were there. These lions had an iron chain round their necks from which hung a great bell. The victim of injustice came at night and rung the bell, and when the Sultan heard it, he immediately inquired into the case and gave satisfaction to the complainant."<sup>7</sup>

In still earlier times we hear of a Tamil of noble descent named Eḷāra, hailing from the Cola country, who made himself master of the kingdom of Ceylon in the second century B.C., and adopted a plan not unlike that of Iltutmish, Jahāngīr and Muḥammad Shāh.<sup>8</sup> "At the head of his bed he had a bell hung up with a long rope so that those who desired a judgment at law might ring it." The king, we are told, had only one son and one daughter. When once the son of the ruler was going in a car to the Tissa-tank, he killed unintentionally a young calf lying on the road with the mother cow, by driving the wheel over its neck. The cow came and dragged at the bell in bitterness of heart ; and the king caused his son's head to be severed from his body with that same wheel.

"A snake had devoured the young of a bird upon a palm-tree. The hen-bird, mother of the young one, came and rang the bell. The king caused the snake to be brought to him, and when its body had been cut open and the young bird taken out of it he caused it to be hung up upon the tree."

The cases actually cited in the *Mahāvamsa* belong to the domain of folklore. But they prove that the Chain of Justice was no Mughul or Persian invention but had a long history in India itself dating back to the period of Cola rule in the South. Incidentally, the story of the Chain of Justice affords a proof of the survival of old institutions in this country and demonstrates that the early Sultanate of Delhi, as well as the Mughul polity that eventually took its place, was not impervious to the influence of its Hindu environment.

6. Elphinstone, *The History of India*, p. 539.

7. Elliot, *The History of India*, Vol. III. p. 591.

8. Geiger, *The Mahāvamsa*, p. 143.

## THE AGE OF KALACURI IMPERIALISM—

### GĀNGEYA AND KARṆA

By A. GHOSH

The history of the Kalacuris of Cedi was dealt with in detail by Mr. R. D. Banerji in his *Haihayas of Tripurī and Their Monuments* (Memoirs of the Archaeological Survey of India, No. 23). Though nothing important has been discovered after its publication, I believe that the available materials may be re-studied with profit.

The career of the Kalacuris of Tripurī begins with Kokalla or Kokkalla I, who established himself in Dāhala in the latter half of the ninth century. Since then the Kalacuris had an uninterrupted reign in that area for about four centuries. But it was only in the eleventh century that the dynasty attained imperial dimensions under two emperors, Gāṅgeyadeva and his son Karṇadeva, who made their sway felt all over India.

The inscriptions of Karṇa mostly bestow conventional praise on him and Gāṅgeya. The information derived from them is largely supplemented by some inscriptions of their successors, *viz.* the Jabalpur plates<sup>1</sup> and the Khairha plates of Karṇa's son Yaśaḥkarṇa,<sup>2</sup> and the Bheraghat inscription of the queen of Gayākarṇa,<sup>3</sup> the son of Yaśaḥkarṇa. But even when all the information derived from these records is put together, much of the brilliant period of Kalacuri history remains unsaid. It is from the literary and epigraphic records of other dynasties that we can form a proper estimate of these two powerful kings.

The only available inscription of Gāṅgeya is the Piawan rock inscription dated A.D. 1037(?).<sup>4</sup> But from synchronisms we can easily conclude that he succeeded his father Kokkalla II in the early years of the eleventh century.

Gāṅgeya :  
Dates.

1. *Ep. Ind.*, Vol. II, p. 3.

2. *Ibid.*, Vol. XII, p. 205.

3. *Ibid.* Vol. II, p. 7.

4. *Archæological Survey of India*, Vol. XXI, p. 113. It is understood that the record is now non-existent. [Another inscription of this king, dated 772=A.D. 1030 has recently been found.]



The Kalacuri inscriptions give prominence to Gāṅgeya's relation with Kuntala, in which direction he must have achieved substantial success. That his famous contemporaries, the Paramāra Bhoja and the Western Cālukya Jayasimha, fought with each other is known to us from the Belgamve inscription of A.D. 1019,<sup>5</sup> which describes the latter as 'the moon to the lotus that was Bhoja' and as having defeated the Colas and Ceras and put to flight the confederacy of Mālava.<sup>6</sup>

In his northern wars Jayasimha II must have been helped by Caṭṭadeva (also called Kundama, Kundaṛāja etc.), the governor of Kuntala (c. 980-1031). He was the son of Iṛivabedaṅgadeva who had been placed in Banavāsi by the newly restored Cālukya kings. The Banavāsi inscription of Kīrtivarman<sup>7</sup> says: 'There was a king Caṭṭuga. . . When he drove into flight the Mālava confronting him on the Highland and drank water in conspicuous wise from Gautama-Gaṅge (i.e. the Godāvarī), verily the title of "Guardian of the Highland" accrued to King Caṭṭa in the camp of the sovereign Jayasimha.'

This shows that Bhoja was met on the banks of the Godāvarī by the joint forces of Jayasimha and his vassal Caṭṭadeva. The Belgamve inscription referred to above mentions a confederacy which Jayasimha put to flight. From the Kulenur inscription of A.D. 1028<sup>8</sup> it appears that the confederacy was formed of Bhoja and Gāṅgeya; for in describing the exploits of Caṭṭa the inscription says: 'O Kundiga, what they name thee in respect of courage, what further praise can others give? It is not what is said by the troops of elephants of the Cola, Gāṅgeya and King Bhoja with open mouths as they flee away in the battle when they were pressed by (thy) elephants, furious with storms of rutting ichor, as they flee away in terror through which they gallop off without waiting at all to charge with their tusks?' The editor of the inscription takes Gāṅgeya to refer to a Gaṅga king. But here we have a clear reference to Gāṅgeya the Kalacuri king and his Kuntala war.

The Goharwa plates of Karṇa<sup>9</sup> credit Gāṅgeya with having broken the power of Kuntala (*Kuntala-bhaṅga-bhaṅgi-rasika*). In the Gurgi inscription<sup>10</sup> it is said in a mutilated passage which most probably refers to Gāṅgeya that (out of his fear) the Kuntala king lived in

5. *Ind. Ant.*, Vol. V. p. 17.

6. Cf. Ganguly, *History of the Paramāras*, p. 91.

7. *Ep. Ind.*, Vol. XVI, p. 359.

8. *Ibid.*, Vol. XI, p. 142.

9. *Ibid.*, Vol. XV, p. 333.

10. *Mem. Arch. Surv. Ind.*, No. 23, p. 122.

Vanavāsa (Banavāsi) or exile in a forest (*nivasati vanavāse Kuntalo...*). In the Jabalpur plates and Khairha plates the following line occurs about Gāngeya :

*yasmād=akasmād=apayānam=icchān=  
na Kuntalaḥ kunta-latām babbhāra ||*

'Wishing to run away from whom (*i.e.* Gāngeya) in a hurry the (king of) Kuntala did not (even) hold the shaft of his spear.' Owing to a misunderstanding of the passage (*a-Kuntalaḥ* for *na Kuntalaḥ* and *Kuntala-tā* for *kunta-latā*) the editor of the Khairah plates held that 'the eulogist evidently seems to convey that Gāngeyadeva was so noble that he restored Kuntala country to its king who was defeated and was running away with dishevelled hair.' It is useless to twist the construction when a much simpler explanation is available.

It is difficult to determine whether by Kuntala is meant the Cālukya king or the Kadamba chief. Confined to its strict geographical limits, Kuntala only refers to the south-western portion of the Cālukya kingdom. But we must remember that in the *Vikramāṅka-deva-carita* the Cālukya king is very often called the 'lord of Kuntala.' It seems that sometimes the whole of the Cālukya kingdom was loosely called Kuntala.<sup>11</sup>

Thus, as is often the case in the political history of early mediæval India, both the parties claim victory over each other in their respective records, and it is difficult to decide with which party the victory really lay. Two conflicts, in which once the one party and then the other was victorious, are sometimes postulated in such cases, without sufficient justification. Unless there is some confirmatory evidence to ascribe the victory definitely to one of the parties, we must be contented with the knowledge that there was a conflict between the parties and refrain ourselves from concluding anything about the victorious party.

From the latter half of the tenth century the Pratīhāra power was dwindling before the rising Candellas. Dhaṅga 'obtained an empire'<sup>12</sup> and became the 'lord of the river of the gods.'<sup>13</sup> His grandson Vidyādhara broke the power of Rājyapāla, the Pratīhāra king.<sup>14</sup> In the Dubkund in-

The Candellas.

11. Mirashi shows that Vidarbha is sometimes identified with Kuntala by Rājasekhara, *A.B.O.R.I.*, Vol. XI, p. 361.

12. *Prāpa sāmrajyam=uccaiḥ*, Mau inscription, *Ep. Ind.*, Vol. I, p. 195.

13. *Deva-sarit-patiḥ*, Mahoba inscription, *ibid.*, Vol. I, p. 217.

14. *Vihita-Kanyākubja-bhūpāla-bhaṅgam*, *ibid.* 'The Muḥammadan historians are in substantial agreement with this, see Nāzim, *Sulṭān Maḥmūd of Ghazna*, p. 110. It is not necessary to believe that Vidyādhara slew Rājyapāla under

scription<sup>15</sup> it is said that Rājyapāla was killed in battle by Arjuna, a Kacchapaghāta prince, who had been appointed by Vidyādhara.

The victory of Vidyādhara must have greatly increased his power and prestige and created a disturbance in the balance of power, which Bhoja and Gāṅgeya could not tolerate. Gāṅgeya must have proceeded to the north to curb the power of the Candellas. There is a possibility that in this expedition also he was allied with Bhoja; for the Mahoba inscription says that Bhoja, along with the 'moon of the Kalacuri dynasty' served Vidyādhara as a student (*samara-gurum=upāsta-praudha-bhīḥ=talpa-bhājan saha-Kalacuri-candraḥ śiṣyavad=Bhojadevaḥ*).<sup>16</sup> In the same inscription Vijayapāla, the successor of Vidyādhara, is said to have defeated Gāṅgeya, 'who had conquered the whole world.'

But there are reasons to believe that in spite of the Candella opposition Bhoja occupied the Doab for some time. The Basahi plates say that Candra, the first Gāhaḍavāla king, occupied the earth (i.e. Kanauj) after the passing away of Bhoja and Karna.<sup>17</sup> Gāṅgeya got mastery over the Allahabad area, for the Khairha and the Kumbhi plates state that he died at the foot of the fig-tree at Prayāga along with his hundred wives<sup>18</sup>. The occupation of Allahabad by another Central Indian power must have been to a great extent at the cost of the Candellas.

orders from his father Gaṇḍa (*J.R.A.S.*, 1909, p. 278). H. C. Ray gives good reasons for holding that Nandā of the Muḥammadan historians should be regarded as a mistake for Bīdā, i.e. Vidyādhara, *Dynastic History of Northern India*, Vol. I, p. 604.

15. *Ep. Ind.*, Vol. II, p. 232.

16. C. V. Vaidya unnecessarily corrects *upāsta-praudha-bhīḥ* to *dhīḥ*, *History of Medieval Hindu India*, Vol. III, 180. H. C. Ray would identify Kalacuri-candra with Kokalla II, *loc. cit.*, Vol. II, p. 688.

17. *Ind. Ant.*, Vol. XIV, p. 101. D. C. Ganguly, *loc. cit.*, p. 107n., points out that the Bhoja referred to here is the Paramāra king and not the Pratihāra king of that name.

18. *Ep. Ind.*, Vol. XII, p. 205; *JASB.*, Vol. XXXI, p. 116. This is a case of mass-suicide at Prayāga. Cf. the cases of the Later Gupta Kumāragupta III, the Candella Dhaṅga, and probably the Rāṣṭrakūṭa Dhruva. Suicide at Prayāga is highly commended in the Śāstras. The matter has been thoroughly discussed by K. Chaṭṭopādhyāya in *Journal of the U.P. Historical Society*, Vol. X, pp. 65f.

Gāṅgeya did not rest contented with this but proceeded further east. We have definite evidence of his occupation of Benares. Baihaqī, a Muslim historian, says that Niyaltigīn, the governor of Mas'ūd, crossed the Ganges in the summer of A.H. 424 (A.D. 1033) and 'arrived at a city which is called Banāras and which belonged to the territory of Gang,'<sup>19</sup> whom we may safely identify with Gāṅgeya. This view may conflict with the testimony of the Sarnath inscription of Mahīpāla,<sup>20</sup> on the basis of which it is generally held that the empire of Mahīpāla extended as far west as Benares. However, I believe that the testimony of the inscription is not sufficient for this conclusion, as it simply refers to the erection of some temples at Benares by Mahīpāla.

We have already seen that Bhoja and Gāṅgeya were allied in their southern campaign and possibly also in their war against the Candellas. But the imperial designs of both could not have allowed the alliance to last for long and soon brought them to hostility.

In the undated Kalvan plates<sup>21</sup> Bhoja is said to have defeated the Cedi lord and a similar statement occurs in the Udepur inscription of the Paramāras.<sup>22</sup> In the *Pārijātamañjarī*, a lapidary drama,<sup>23</sup> the Cedi rival of Bhoja is definitely said to have been Gāṅgeya whose power Bhoja broke (*tūrṇam pūrṇa-manorathaś=ciram=abhūd=Gāṅgeya-bhaṅg-otsave*).

It appears that even Benares was not the farthest point of Gāṅgeya's advance. For a *Rāmāyaṇa*-manuscript discovered in Nepal bears a colophon at the end of the *Kiṣkindhyā-kāṇḍa*, saying that it was copied in the [Vikrama] year 1076 (A.D. 1019), when Tīrabhukti (Tirhut) was being ruled by *mahārājādhirāja-Soma-vamśodbhava-Gauḍadhvaṇa-śrīmad-Gāṅgeyadeva*.<sup>24</sup> We have already seen that Gāṅgeya's occupation of Benares is well attested to by a

19. Elliot, *History of India*, Vol. II, p. 123, in *Tārīkh-i-Baihaqī*, called *Tārīkh-us-Subuktigīn* by Elliot. The passage occurs in Vol. II, p. 497 of the Persian text published by the Asiatic Society of Bengal. I owe this Persian reference to my friend Mr. R. S. Avasthy, who further tells me that the text has the word *vilāyat*, 'territory', 'government', and precludes the possibility of the river Ganges being referred to.

20. Maitra, *Gauḍalekhamālā*, p. 104.

21. *Ep. Ind.*, Vol. XIX, p. 69.

22. *Ibid.*, Vol. I, p. 234.

23. *Ep. Ind.*, Vol. VIII, p. 101.

24. *J.A.S.B.*, Vol. LXXII, p. 18. R. C. Mazumdar proposes to refer the date to the Śaka era, *I.H.Q.*, Vol. VII, p. 681. But the word *saṃvat* is not

Muhammadan historian. And in the Kalacuri inscriptions there are references to his invasions of East India. The Gurgi inscription has a passage, probably referring to him, which says that the king of Gauḍa took recourse to the sea (out of fear) (*jalanidhi-jala-durgan Gauḍa-rājo=dhiśete*), and the Goharwa plates credit him with the conquest of Aṅga. It is only likely that a king who held Benares and who invaded Aṅga and Gauḍa occupied Tīrhut for some time.

Some difficulties have been created in the way of identifying this king with the Kalacuri Gāṅgeya.<sup>25</sup> In the first place, it has been said that in A.D. 1026 Benares was included in the territory of the Pāla kings, so that it was not possible for Gāṅgeya to have conquered Tīrhut, as Benares lay in the way. But we have already seen that there is no sufficient proof of Mahīpāla's occupation of Benares. Moreover, Gāṅgeya's hold over Benares is attested to by an independent Muslim source.

Secondly, it has been said, Mahīpāla, the Bengal contemporary of Gāṅgeya, held Magadha as is known from a Nepal manuscript copied at Nālandā in the sixth year of his reign,<sup>26</sup> a Bodhgaya stone image inscription,<sup>27</sup> a Nālandā inscription<sup>28</sup> and a Bihar Museum inscription,<sup>29</sup> all of the eleventh year, and the Imadpur (Muzaffarpur district) inscription of the forty-eighth year.<sup>30</sup> Without entering into the thicket of Pāla chronology I would venture to suggest that Gāṅgeya's temporary occupation of Tīrhut took place during Mahīpāla's reign, as there is no evidence of Mahīpāla's holding any part of North Bihar before his forty-eighth year.<sup>31</sup>

Thirdly, it must be admitted that the titles given to Gāṅgeya in the colophon are not characteristic of the Kalacuris. But it may be pointed out that it is not a state document and that, therefore, there is nothing improbable in a copyist describing the king of a new usually used singly in connexion with the Śaka era. As Kielhorn pointed out, there are only five inscriptions in which the word Śaka is not mentioned, of which three are spurious and two are in verse. *Ep. Ind.*, Vol. IX, p. 128.

25. Cf. Chanda, *Gauḍarājamālā*, p. 42 n.

26. *Proc. A.S.B.*, 1899, p. 69.

27. *Mem. A.S.B.*, Vol. V, p. 75.

28. *Gauḍalekhamālā*, p. 101.

29. Kielhorn, *List of Northern Inscriptions*, p. 86n.

30. *Ind. Ant.*, Vol. XIV, p. 165n. [A Kurkihar bronze image inscription of the thirty-first year may be added].

31. There is absolutely no reason to believe that Mahīpāla died shortly before the date of his Sarnath inscription, as has been held by R. D. Banerji, *History of Bengal* (in Bengali), Vol. I, p. 257.

dynasty with titles which seemed to him most suitable. In this connexion it may be mentioned that the title *Gauḍadhvaḥja* seems to suggest that Gāṅgeya held Tirthut by virtue of his occupation (of course temporary) of Gauḍa.<sup>32</sup>

Besides the above, the Goharwa plates would have us believe that Gāṅgeya imprisoned the king of Kīra. The Kīra country was situated in the eastern Panjab on the river Sarasvatī, as is evident from the following lines of the Nagpur inscription of the Paramāra : *yen=āvāsya Sarasvatī-savidhatā-sādhi-kyā-vāk-pāṭavaś=cālūn=utkaṭa-patri-pañjara-gataḥ Kīr-ādhipo='dhyāpyata*.<sup>33</sup>

From the Amoda plates we know that the Kosala contemporary of Gāṅgeya was Kamalarāja who churned the king of Utkala and contributed wealth to the treasury of Gādre(ṅge)yadeva.<sup>34</sup> This clearly shows that the relation of the collateral Tummāṇa princes was still cordial with and more or less subordinate to the main Kalacuri line.

Of the Kalacuri rulers, only Gāṅgeya is known to have issued coins, which are 'fairly common in the eastern districts of the United Provinces.' His coin-type was imitated by the Candella Kīrtivarman and his successors, as well as by the Tomaras and the Rathors of Kanauj.<sup>35</sup>

Miscellaneous  
facts.

Gāṅgeya raised a temple of the *meru*-type, as we know from the Bheraghat inscription. According to the *Prabandhacintāmaṇi* of Merutuṅga, his queen was Demati, who died shortly after the birth of Karṇa.<sup>36</sup> Gāṅgeya died at the foot of the holy fig-tree at Prayāga and was followed by a hundred wives. In the Khairha plates he is said to have been famous as Vikramāditya.

Of Gāṅgeya's son and successor Karṇa, the following inscriptions

32. Cf. Jayaswal, *J.B.O.R.S.*, Vol. X, p. 39.

33. *Ep. Ind.*, Vol. II, p. 180; for a history of Kīra see *I.H.Q.*, Vol. IX, pp. 11 f.

34. *Ep. Ind.*, Vol. XIX, p. 75. The portion runs thus : *kṣīṇodapu(m=U)tkala-nypani parimathya dhīro Gādre(ṅge)yadeva-vibhave samadāc=chriyaṇi yāḥ*. N. P. Chakravarti points out that this means that Kamalarāja 'made over to Gāṅgeya the goddess of wealth' (arising out of the churned enemy) and not 'tried to equal Gāṅgeya in prosperity' as was held by Hiralal, the editor of the inscription (*Ep. Ind.*, Vol. XXI, p. 161).

35. *Catalogue of Coins in the Indian Museum*, Vol. I, p. 250; Rapson, *Indian Coins*, p. 33.

36. *Prabandhacintāmaṇi*, tr. Tawney, p. 74.

are known : (1) the Benares copper-plate inscription of the year 793. It traces the genealogy from Kokalla I and records the grant of the village Sūsi in [Hapathā ?] Kāsi(śi ?)-bhūmi, and was issued from the victorious camp at Prayāga<sup>37</sup> by the king who bathed in the Venī, evidently Trivenī, on Saturday the second day of the dark fortnight of Phālguna, on the occasion of the annual *śrāddha* ceremony of his father. The plates, however, were issued on Monday, the ninth day of the same fortnight. The first date is incorrect, while the second regularly corresponds to January 18, 1042;<sup>38</sup> (2) the Sarnath fragmentary inscription of the year [8]1[0],<sup>39</sup> the date corresponding to October 4, 1058, recording that Māmakā, a follower of Mahāyāna, caused a copy of the noble *Aṣṭa-sāhasrikā* to be written and presented something to the monks; (3) the Rewa inscription of the year 812(?), in the ninth year of Karna's reign,<sup>40</sup> recording the erection of a *liṅga* by Vapullaka, who won many battles for Karna; (4) the Goharwa (Allahabad district) copper-plate inscription of the seventh year of Karna's reign, recording the grant of the Candahā village in the Kosambapattalā, and issued from the victorious camp at Karna-tīrtha by the king who bathed in the Ganges at Arghatīrtha on Thursday, the full moon of Kārtika; and (5) the Paikore (Birbhum district, Bengal) inscription,<sup>41</sup> saying that a sculptor erected an image of a deity at the orders of Karna.

Fleet, in his note on the Goharwa plates, thought that the Benares plates of A.D. 1042 were issued on the occasion of the *first* annual *śrāddha* of Gāṅgeya: the Goharwa plates of the seventh year of Karna's reign were thus issued in A.D. 1047, when the full moon of Kārtika was a Thursday as required (November 5). It is, however, only a conjecture that the Benares plates commemorate the first annual *śrāddha* of Gāṅgeya.<sup>42</sup> We should therefore try to find out the date of

37. Kielhorn read it as [Seasā]ga or [Stayā]ga, but later on corrected it to *Prayāga*, *Northern List*, No. 407.

38. *Ep. Ind.*, Vol. II, p. 395. Hiralal tries to remove the discrepancy by suggesting that 'the writer associated the *dvitīyā* with a Saturday on which the main portions of the ceremony were performed instead of Sunday on which that date actually fell.' *Inscriptions of C.P. and Berar*, 2nd. ed., p. 31. See also J. C. Ghosh, *Indian Culture*, Vol. I, p. 289.

39. *An. Rep. Arch. Surv. Ind.*, 1906-07, p. 100.

40. *Mem. Arch. Surv. Ind.*, No. 23, p. 130.

41. *An. Rep. Arch. Surv. Ind.*, 1921-22, p. 79.

42. It is impossible to agree with Fleet that 'the text appears to indicate distinctly, not some indefinite anniversary of the death of Gāṅgeyadeva, but the first anniversary of his death,' *Ep. Ind.*, Vol. XI, p. 146. The text has

Gāṅgeya's death by some other means. We have already seen that Gāṅgeya was alive in the summer of A.D. 1033 (*Tārīkh-i-Baihaqī*). As his death took place in the month of Phālguna (Benares plates), it could have occurred in A.D. 1034 at the earliest. Again, assuming that the Benares plates were issued on the *first* annual *śrāddha* day of the king, we find that he died in A.D. 1041 at the latest. The Goharwa plates were issued in the seventh year of Karna's reign; their date, therefore, lies somewhere between the years 1040 and 1047. Between these two years it was only in the years 1044 and 1047 that the full moon of Kārtika was coupled with a Thursday,<sup>43</sup> as is required by the Goharwa plates. The death of Gāṅgeya therefore took place on Phālguna *va di* 2 of either A.D. 1038 or 1041. But the following consideration suggests that Fleet was most probably right in taking A.D. 1041 as the date of Karna's accession.

The date of the Rewa inscription of Vapullaka has been read as 812, the other details given being the tenth day of the bright Māgha, Thursday, in the ninth regnal of Karna. The date regularly corresponds to January 4, A.D. 1061, but obviously this cannot be the ninth year of the king. Mr. R. D. Banerji, the editor of the inscription, held that Karna was crowned a second time after his conquests some time in A.D. 1052. Professor D. R. Bhandarkar suggests that *navame* is a mistake for *navadaśe*,<sup>44</sup> so that the inscription is dated in the nineteenth year of Karna's reign. I venture to suggest that the mistake lies in the year, 812 being a mistake for 802, the date thus corresponding to January 24, A.D. 1051, which also was a Thursday as required.<sup>45</sup>

The Benares and the Goharwa plates, which are the earliest records of the king, call him *paramabhaṭṭāraka-mahārājādhirāja-parameśvara-Īmadeva-pād-ānudhyāta-paramabhaṭṭāraka-mahārājādhirāja-parameśvara-Trikaliṅg-ādhipati*. But the later Sarnath inscription gives him his full titles: *P. M. P. śrī-Vāmadeva-pād-ānudhyāta-P. M. P.-Trikaliṅg-ādhipati-nijabhuj-opārjit-āśvapati-gajapati-narapati-rājatray-ādhipati*. All these were

very much the same wordings as the Kamauli grant of Govindacandra of A.D. 1117 (*Ep. Ind.*, Vol. IV, p. 104) on the occasion of the annual *śrāddha* of his father in the Vikrama year 1174, which is clearly not the year of the first annual *śrāddha* of Madanapāla.

43. The information was very kindly supplied to me by Professor V. V. Mirashi of the Morris College, Nagpur.

44. *List of Northern Inscriptions*, No. 1226 n.

45. I am thankful to the Government Epigraphist for India for this information.



as well held by the successors of Karna, Yaśaḥkarna,<sup>46</sup> Narashinḥa and Jayasimḥa,<sup>47</sup> and were snatched away from them by the Candella Trailokyavarman sometime between A.D. 1205 and 1240.<sup>48</sup> We also find Govindacandra of the Gāhaḍavāla dynasty calling himself *aśva-pati-gajapati-narapati-rājatray-ādhipati*; he is the first prince of his line to hold these titles and it is only in his inscriptions of A.D. 1120<sup>49</sup> and onwards that they are prefixed to his name. All his successors also inherited them.<sup>50</sup> There is hardly any doubt that he assumed them after the war with Yaśaḥkarna or Gayākarna which resulted in the annexation of some land once held by Yaśaḥkarna (cf. the subject-matter of the A.S.B. grant). In some Sena grants Lakṣmaṇasena and his successors are given these titles.<sup>51</sup> Most probably they accrued to Lakṣmaṇasena as a result of his victory over the Kāśīrāja,<sup>52</sup> who, no doubt was the contemporary Gāhaḍavāla king.

To turn to Karna again. It is difficult to determine how he won these titles. It has been said that *Hayapati* figures in the Khajuraho inscription<sup>53</sup> as a title of Herambapāla's son, Devapāla, who has been identified by Kielhorn with the Pratihāra king of that name; and that, therefore, it was a Pratihāra title. It is unnecessary for our purpose to enter into the tangle of Pratihāra chronology; it will be sufficient to say that some reasonable doubts have been raised about

46. Cf. Khairha plates.

47. Lalpahad inscription, *Ind. Ant.*, Vol. XVII, p. 211; Rewa plates, *ibid.*, Vol. XVII, p. 230.

48. Garra plates, *Ep. Ind.*, Vol. XVII, p. 272; Rewa plates, *Ind. Ant.*, Vol. XVII, p. 230.

49. A.S.B. grant, *J.A.S.B.*, Vol. XXXI, p. 123. Candradeva claims to have defeated Narapati, Gajapati, Triśaṅkupati and Pañcāla rulers, *Ep. Ind.*, Vol. XIV, p. 192. As these princes are mentioned separately, it is impossible to think that by the first two the contemporary Kalacuri (most probably Yaśaḥkarna) is intended. At any rate, neither Candradeva nor his immediate successor held these titles. In this connexion it may be recalled that according to Hiuen Tsang the ruler of the South was known as the 'lord of elephants,' that of the West as the 'lord of treasures,' that of the North as the 'lord of horses' and that of the East as the 'lord of men.' (Béal, *Buddhist Records*, Vol. I, p. 13). The title *aśvapati-gajapati-narapati-rājatray-ādhipati* may mean 'overlord of the three kings of the north, south and east.'

50. Cf. Macchlishahr grant of Hariścandra, *Ep. Ind.*, Vol. X, p. 94.

51. Cf. Madanpara grant of Viśvarūpasena, Majumdar, *Inscriptions of Bengal*, Vol. III, p. 132.

52. Cf. Madhainagar grant of Lakṣmaṇasena, *ibid.*, 106.

53. *Ep. Ind.*, Vol. I, p. 129.

this Devapāla having been a Pratihāra at all.<sup>54</sup> Mr. C. V. Vaidya's view that the Kalacuris got the titles *Narapati* and *Gajapati* from the Gāhaḍavālas and the Pālas respectively<sup>55</sup> cannot be upheld, as they were not the characteristic titles of these two dynasties; moreover, the Gāhaḍavālas as a political power were non-existent in A.D. 1058, when Karna was holding these titles. Similarly, no definite conclusion can be arrived at about the other title *Rājatrāyādhipati*.<sup>56</sup>

Karna was not the first king of his line to adopt the title *Trikaṭiṅgādhipati*. For the *Viddhaśālabhañjikā* of Rājasekhara attributes it to Yuvarāja I;<sup>57</sup> the fact that there is no epigraphic evidence of any previous king having held it proves nothing, as no copper-plate (which alone usually gives full official titles) of any king of the dynasty prior to Karna has yet been discovered. The title was previously held by some of the Guptas of Kosala (ninth-tenth century).<sup>58</sup> Later on Vajrabasta V of the Eastern Gaṅga dynasty held it contemporaneously with Karna, as is evident from the former's inscriptions of A.D. 1045 and 1058,<sup>59</sup> and handed it over to his successors as well.<sup>60</sup> The title was, therefore, nothing more than a meaningless dignity.

Who was Vāmadeva on whose feet Karna and his successors meditated is a problem. As Vāmadeva is another name of Śiva, Dr. H. C. Ray thinks that we have here an instance of the deification of ancestors.<sup>61</sup> But in the interesting Malkapuram inscription of A.D. 1261<sup>62</sup> we have an account of a line of Śaiva ascetics beginning with

54. Mazumdar, *Journal of the Department of Letters*, Vol. X, p. 54 n.

55. *Loc. cit.*, Vol. III, p. 191.

56. A Gaṅga inscription, *Ind. Ant.*, Vol. XII, p. 125, says about Queen Lakṣmī, the mother of the Gaṅga king Bhīllama: *sapt-āṅg-odyata-rājya-bhāra-bharaṇād=rājya-tray-ārghyā tataḥ*. Bhagwanlal Indraji and R. G. Bhandarkar agree in correcting *rājya-traya* to *rājyatrāya* (*Early History of the Deccan*, 3rd ed., p. 175). It may be that the word intended was *rājatrāya*, *rājya* being a Prakritism for *rājan*.

57. *Viddhaśālabhañjikā*, ed. Poona, p. 39. The text has *Trikaṭiṅgādhipati*, v.l. *Kaṭiṅgādhipati*.

58. *Ep. Ind.*, Vol. III, p. 340; Vol. XI, p. 93 etc.

59. *Ibid.*, Vol. XI, p. 147; Vol. IV, p. 183 etc.

60. *Ind. Ant.*, Vol. XVIII, p. 461 etc.

61. *Pr. Seventh Oriental Conference, Baroda*, p. 355.

62. *Journal of the Andhra Historical Society*, Vol. IV, p. 149. A temple inscription at Moringere, Bellary district, records that the *Rājaguru* Vāmarāśi-deva made a gift of 12 *mattars* of land for the upkeep of a well called Bōvar-ṣana-bāvi in Moringere. The date of the inscription is probably A.D. 1082 (*South Indian Inscriptions*, Vol. IX, pt. I, p. 133). It seems that this is another reference to this religious preceptor.

Sadbhāvaśambhu, Somaśambhu and Vāmaśambhu. About the last it is said : 'There was Vāmaśambhu, whose feet were adorned by garlands of the chief kings, and are still now worshipped by the Kalacuri kings.' We know from the same inscription that Sadbhāvaśambhu was the contemporary of Yuvarāja II, the great grand-father of Karna ; there is, therefore, no difficulty in Vāmaśambhu-Vāmadeva's being a contemporary of Karna. The royal titles attributed to him probably indicate that he lived in royal splendour. In the Sarnath inscription of Mahīpāla it is said that that king worshipped an ascetic named Vāmarāśi. It is possible that Vāmarāśi is only a variant of the name of the ascetic, so that Mahīpāla was one of the 'chief kings' who worshipped the feet of Vāmaśambhu. The fact that Mahīpāla was a Buddhist<sup>63</sup> presents no difficulty, as he had Śaiva temples built at Benares.

The feud of the Kalacuris and the Candelles which began in the reigns of Gāṅgeya and Vidyādhara continued in the reign of their successors. In the reign of the Candella Kīrtivarman Karna proceeded to the north. The defeat of Karna by Kīrtivarman is referred to in many Candella inscriptions. A fragmentary Kalanjar inscription<sup>64</sup> says that he quickly dispelled the ocean-like Karna. A Mahoba inscription<sup>65</sup> says that he crushed Lakṣmī-Karna 'who had swallowed many kings.' More light is thrown by the Ajaigadh inscription<sup>66</sup>, which says that Kīrtivarman drank the sea of Karna's army and created a new kingdom. This doubtless shows that before the incident Karna had utterly defeated and broken the power of the Candellas. Hultzsch shows that the incident is also referred to in three passages in the prologue to a drama, the *Pārijātamañjarī* of Kṛṣṇamiśra. The passages definitely state that Gopāla, the minister of Kīrtivarman, acted like the great Boar in lifting up the earth which had sunk in the ocean of the invading kings, that he re-established the power of the Candella kings, who had been ousted by the Cedi lord, the destroyer of all kings, and that he re-instated Kīrtivarman on the throne. That Karna inflicted a severe defeat on the Candella kings further appears from the *Vikramāṅkadeva-carita* of Bilhana (xviii. 93), which calls Karna the 'death to the lord of Kālāñjara' (*kālah Kālāñjara-giri-pateh*). Bühler shows

63. The Bangadh inscription calls him Parama-saugata, *Gaudalekhamālā*, 96.

64. *J.A.S.B.*, Vol. XVII, pt. i, p. 317.

65. *Ep. Ind.*, Vol. I, p. 217.

66. *Ibid.*, Vol. I, p. 325.

that Bilhaṇa could not have left his native land before A. D. 1062;<sup>67</sup> the defeat of Kaṇa by Kīrtivarman must have taken place after that date.

In his later years Gāṅgeya was not on good terms with Bhoja and probably suffered a defeat at the hands of the latter. Kaṇa took a terrible revenge on his senior contemporary. If we read in between the lines of the Nagpur inscription of the Paramāras, it is evident that the army of Kaṇa and the Kaṇāṭa lord occupied the dominions immediately on the death of Bhoja. It is said that when Bhoja died, the kingdom was engulfed in a political whirlpool in which royalty was lost, and Bhoja's relative (*bandhu*) Udayāditya rescued the earth (*i. e.* the Paramāra land). A similar statement occurs in the Udepur inscription which says that after the death of Bhoja the earth became surrounded with darkness and it was Udayāditya who dispelled the gloom like the sun.

The *Prabandhacintāmaṇi* of Merutuṅga speaks of the disaster of the Paramāras that was brought about by Kaṇa's invasion of Dhārā.<sup>68</sup> According to it, Kaṇa, the king of the whole earth, the master of the four royal sciences and the lord of one hundred and thirty-six princes, challenged Bhoja in a duel, a fight, a learned disputation or the faculty of munificence. Bhoja proposed that each of them should build a temple, Kaṇa at Benares and Bhoja in Avanti, and that the earlier finish of the temple by the one would mean the defeat of the other. The temple of Kaṇa at Benares was finished earlier. He then set out with one hundred and thirty-six kings to meet his rival and stipulated with Bhīma I of Gujrat that the latter would attack Bhoja in the rear, promising him half of the spoils. But when the moment of action came, Bhīma, for some reason or other, remained inactive. Bhoja died of a despondent heart, 'as a snake overcome with the charm', and Kaṇa marched upon Dhārā and seized the treasury.

Bühler, in his introduction to the Udepur inscription, doubted this story of Merutuṅga, though it is reconcilable with the evidence of the two Paramāra inscriptions quoted above, for the reasons that the

67. *Vikramāṅkadevavarāta*, introduction. Bühler thought, *Ep. Ind.*, Vol. I, p. 234, that as Bilhaṇa refers to King Bhoja of Dhārā, the latter must have died after A.D. 1062, a fact which is at variance with epigraphic evidence. From the terms in which Bilhaṇa refers to Bhoja (xviii. 96), it need not necessarily be concluded that Bhoja was living at that time. We may conceive that the poet makes Dhārā lament that he could not meet the great king as he came only after his death.

68. *Prabandha-cintāmaṇi*, tr. Tawney, pp. 73 f.,

Kalacuri inscriptions do not credit Karṇa with the annexation of Dhārā and that Hemacandra in the *Dvayāśraya-mahākāvya* does not mention this among the exploits of Bhīma. Neither of the difficulties is insuperable : the Kalacuri inscriptions insofar as they relate to Karṇa give only vague and general statements about that king, and Hemacandra might well have omitted the mention of the fact about Bhīma, as the part played by him was neither important nor glorious.

The relation between the Paramāras and the Western Cālukyas was not cordial, as Bhoja claims to have defeated them in the Udepur inscription. The conflict of Bhoja and Jayasimha II has been mentioned before. The *Vikramāṅkadeva-carita* (i. 91-94) says that Someśvara invaded Dhārā and Bhoja fled before him. But Karṇa's accession to great power was probably intolerable to the Cālukyas and they decided to help the Paramāras in their distress. The *Vikramāṅkadeva-carita* (iii. 67) says that Vikramāṅka, the prince of Someśvara I, placed on the throne the Mālava king who had sought his protection.

It appears that Jayasimha I, the immediate successor of Bhoja, appealed to the Cālukyas against Karṇa, as a result of which Vikramāṅka helped Jayasimha to get back his ancestral throne. But the army of Karṇa does not seem to have been totally expelled from Dhārā. Udayāditya, who in all probability did not belong to the main line,<sup>69</sup> ousted Jayasimha, who like Cakrāyudha of old had been *par-āśraya-kṛta-sphuṭa-nīca-bhāva*, as is seen from the fact that in all the inscriptions of Udayāditya and his successors, Udayāditya is shown as the immediate successor of Bhoja, Jayasimha being never named and his reign being described as one of misery and gloom.

In expelling Jayasimha and freeing the land from foreign domination, Udayāditya had of necessity to drive out the Cālukya garrison which had been invited by Jayasimha as well as whatever was left of Karṇa's domination in the Paramāra land. It is this fact that has in all probability been referred to in the Nagpur inscription, which says that Udayāditya acted like the primeval Boar in rescuing the earth from the ocean-like Karṇāṭa and Karṇa<sup>70</sup> (*yen=oddhṛtya mah-ārṇṇa-*

69. The recently published Jainad inscription states that Bhoja was the *pitṛya* of Jagaddeva, the son of Udayāditya, *Ep. Ind.*, Vol. XXII, p. 54. D. C. Ganguly thinks that Udayāditya was a cousin and not a brother of Bhoja.

70. There is a possibility of this Karṇa being the Caulukya king of that name, the son of Bhīma I, cf. R. C. Modi, *Bhāratiya Anuśilana (Ojha Commemoration Volume)*, pt. 3, p. 14. But the identification with the Kalacuri Karṇa seems to me to be more reasonable ; the death of Bhoja and the consequent

*v-opama-milat-Karṇāṭa-Karṇa-prabhūm=urvī-pāla-kadarthitām bhuvam=imām śrīmad-Varāhāyitam).*

It may be noted in passing that the hostility of the Paramāras and the Cālukyas continued till later times. In the Nagpur inscription the southerners are said not to have cared for their capital Kalyāṇa when Lakṣmadeva, the successor of Udayāditya, invaded the south (*Kalyāṇasya kath=āpi kātaraṭayā n=āpekṣyate Dakṣiṇaiḥ*).<sup>71</sup>

The *Vikramāṅkadeva-carita* (i. 102-3) also mentions the defeat of the Cedis by Someśvara I, as distinct from the help rendered by Vikramāditya to Malwa against Karṇa. If the account of Bilhaṇa may be taken in a chronological sequence, this event must have preceded the defeat of Bhoja by Karṇa.

The temporary alliance between Karṇa and Bhīma I did not prevent them from falling out later on. Hemacandra in his *Dvyāśraya-mahākāvya* (viii, 52) relates that Bhīma employed spies in the kingdoms of the neighbouring kings, one of whom reported that out of jealousy the kings of Sindhu and Cedi spoke ill of Bhīma. Bhīma defeated the king of Sindhu and marched against Karṇa. A messenger was despatched who related to Karṇa the many victories won by his master. Evidently a peace was made, in which the king<sup>72</sup> promised not to cross the Narmadā (*vājñā Revā na laṅghy=eti*, ix, 57); Karṇa also presented to Bhīma elephants, horses and a golden *maṇḍapikā* which he had seized from Bhoja.

The story of Merutuṅga is different. According to him the two fell out immediately after the defeat of Bhoja, the cause being the division of the spoils. Dāmara, an officer of Bhoja, is said to have taken Karṇa prisoner while asleep and forced him to relinquish a part of the Paramāra treasury to Bhīma.

The Basahi plates of Candradeva have been quoted above and it will be marked that the passage suggests that Karṇa got the sovereignty of Kanauj, no doubt as his reward of defeating Bhoja.

misery to the Paramāras is ascribed to the Kalacuri king by Merutuṅga; Udayāditya claims to have dispelled that gloom, and it is therefore against the Kalacuri king that his activities must have been directed.

71. Kielhorn's translation: 'Those of the south in their perplexity take no heed of good news.'

72. The commentator thinks that the king referred to is Karṇa; but it may be Bhīma as well, who thus bound himself in return for the gifts received from Karṇa.

His Benares plates were issued from the victorious camp at Prayāga and his Goharwa plates record the gift of a village in the Kosanbapattalā, most probably identical with the Kauśāmbī region. These facts prove that like his father he held an uninterrupted sway over the Allahabad area.

The Doab and Benares. Karṇa also inherited Benares from his father and succeeded in retaining it at least till A.D. 1058, the date of his Sarnath inscription. The *Vikramāṅkadēva-carita* (xviii, 93-96) eulogizes Karṇa immediately after describing Benares, which implies that Bilhana met Karṇa at Benares. The *Prabandhacintāmaṇi* often calls Karṇa the 'lord of Benares.'

According to the Tibetan life of Atīśa,<sup>73</sup> Karṇa invaded the Pāla territory in the reign of Nayapāla. He gained some initial successes,

Bengal. but was ultimately beaten by the troops of the Pāla king. At this stage, Atīśa, who was then residing at Gayā, intervened; at his instance a peace was concluded which restored the *status quo*. This event must have taken place before March, 1041, when Atīśa left for Tibet.<sup>74</sup>

The Paikore (Birbhum district) inscription, which says that at the order of Karṇa an image of a goddess was made by a certain sculptor, proves the occupation of a part of Bengal by Karṇa. After his expedition to Bengal Karṇa married his daughter Viraśrī to Jātavarman of the Varman dynasty of East Bengal.<sup>75</sup> Another daughter of his was married to Vighrahapāla as is said in the *Rāmacarita*. The commentary on i. 9 clearly states that Vighrahapāla defeated Karṇa, but instead of uprooting him married his daughter Yauvanaśrī. But the Paikore inscription proves that Karṇa was successful at least in retaining a part of Western Bengal. The Bheraghat inscription says that the Vaṅgas trembled with the Kaliṅgas before Karṇa.

The Bheraghat inscription further says that when Karṇa was ruling, 'the Pāṇḍya king left his fierceness; the Murala king left his pride; the king of Kuṅga adopted good manners; the king of Vaṅga trembled with the Kaliṅgas; the Kīra king lived in a cage like a parrot; the Hūṇa left his merriment.' According to the unfinished

73. *Journal of the Buddhist Text Society*, Vol. I, p. 9; cf. *J. A. S. B.*, 1900, pt. i, p. 192.

74. *I. H. Q.*, Vol. VI, p. 159.

75. Belava inscription, *Ep. Ind.*, Vol. XII, p. 37. Paul proposes to identify Jātavarman of East Bengal with Jāta, an officer of Karṇa mentioned in the Rewa inscription of the time of that king, *I. H. Q.*, Vol. XII, p. 469.

Karanbel inscription, his army crossed the sea. His power is thus described : ‘ “O Coḍa, walk humbly ; Kuṅga<sup>76</sup>, what paltry things are you muttering ? Hūṇa, it is not proper for you to speak thus ; Gauḍa, leave your pride aside ; Gūrjara, do not roar thus ; Kīra, remain in a solitary place.” Thus did his door-keepers  
Other conquests, order the mutually-warring kings when they came to pay him homage.’ It is difficult to determine how much of sober history is hidden in these indefinite statements.

The Rewa inscription, the date of which has been discussed before, mentions the ‘Battle of Horses’ (*ghoṭaka-vigraha*), ‘the Battle of the Yellow Mountain’ (*Pīla-parvata*), and probably some other battles won by Vapullaka for Karṇa. The latter, it seems also fought against a chief named Trilocana, whom R. D. Banerji identifies with the Cālukya prince of Lāṭadeśa, who issued the Surat plates of A.D. 1051.<sup>77</sup>

The *Vikramāṅkadeva-carita* has a verse about Karṇa (xviii. 93) which may be taken into consideration here :

*kālāḥ Kālāñjara-giri-pater=yah prayāṇe dharitrīm  
tukkhārāṇām khura-puta-ravaiḥ kṣmāpa-śūnyām cakāra |*

Bühler translated it as follows : ‘When Karṇa, the great prince of Ḍāhala, the destroyer of the lord of Kālāñjara, who in his expeditions made poor in princes the land of the Tukkhāras...’ From this it would appear that Karṇa is credited with an expedition to Central Asia, a clear exaggeration. But I believe that in the work the word *tukkhāra* is not to be taken as the name of a land but as a particular breed of superior horses, probably the Tokharian horses, as is evident from ix. 116,<sup>78</sup> where any other meaning is clearly impossible.

The Khairha plates give the name of Karṇa’s queen as Āvalladevī  
Miscellaneous of the Hūṇa lineage. He is further said to have founded  
facts. a town called Karṇāvatī. At Benares he built a temple of the *meru* type and named it Karṇameru.<sup>79</sup> The building of a temple at Benares is also mentioned in Merutuṅga’s *Prabandhacintāmaṇi*. According to the Rewa inscription Karṇa was helped in his wars by his minister Jāṭa.

76. Kielhorn identifies with Koṅgudeśa, which included parts of Salem and Coimbatore districts. For a list of ruling princes, see Sewell and Aiyangar, *Historical Inscriptions of Southern India*, p. 362.

77. *Ind. Ant.*, Vol. XII, p. 201.

78. *niśāmya tukkhāra-khura-kṣatāyāḥ kṣites tanutvād=iva yasya kīrtim | sambhūya gāyanti narendrakanyāḥ saṅgītaśālāsu bhujaṅga-bhartuḥ ||*

79. K. P. Jayaswal says that there exists on the Ādikeśava Ghat at Benares a temple still bearing this name, *J.B.O.R.S.*, Vol. IX, p. 39n. Local inquiries, however, failed to reveal the existence of any such temple.



It has been suggested that Karṇa was the forefather of the Kalacuris of Kalyāṇī,<sup>80</sup> the basis of this belief being probably a Harihar Kanarese inscription, which gives the following genealogy : Kannama of Dāhala ; his sons, Bijjala (I) and Sandarāja ; Sandarāja's sons, Am-mugi, Saṅkhavarman, Kannara and Jogama ; Jogama's son, Permāḍi ; his son Bijjala (II).<sup>81</sup> As a known date of Permāḍi is A.D. 1128, when he was a feudatory of the Western Cālukya king Someśvara III,<sup>82</sup> his great-grand-father Kannama is to be placed about the same time as Karṇa of Tripurī, so that the identification of Karṇa with Kannama becomes almost a certainty. But there is a singular lack of uniformity in the inscriptions of the Southern Kalacuri's about their genealogy. The Kokatnur inscription of A.D. 1174 makes Jogama the son of Kṛṣṇa,<sup>83</sup> while some inscriptions carry this genealogy further back to Karṇa's<sup>84</sup> father Bijjala, his father Kannama, his father Sagarasa, and his father Santama of the Lunar race.<sup>85</sup> This genealogy precludes the tracing of the pedigree to any prince of Tripurī. Similarly, the Madagihal inscription of Śaka 1093 etc. says that Kannama was born in the family of the lords of the city of Maṅgaliveda (Maṅgalivedā in the Sangli State).<sup>86</sup> In the face of these difficulties it is best to leave the point undecided.<sup>87</sup>

In his old age Karṇa anointed his son Yaśahkarṇa,<sup>88</sup> whose earliest known date is A.D. 1072. All the synchronisms taken into consideration, the end of Karṇa's reign must be placed between A.D. 1065 and 1070.

Karṇa was indeed a king of exceptional prowess and celebrity, as is admitted even in the records of his enemies. He was also famous for his liberality. The Goharwa plates say that the universe became deaf by the noise of the engraving of copper-plate grants to Brāhmaṇas. His fame remained in the memory of the people till the fifteenth cen-

80. Sewell and Aiyangar, *Historical Inscriptions of Southern India*, p. 356.

81. *Mysore Inscriptions*, p. 64.

82. Ingleswar Kanarese inscription, *Ind. Ant.*, Vol. XII, p. 212.

83. *J.B.B.R.A.S.*, Vol. XVIII, p. 274; cf. Behatti inscription, *Ind. Ant.*, Vol. IV, p. 275.

84. As Kṛṣṇa of the two above inscriptions is called here.

85. Harasur and Kaligi inscriptions.

86. *Ep. Ind.*, Vol. XV, p. 315.

87. For the genealogy and history of the line, see Fleet, *Dynasties of Kanarese Districts*, p. 486 f. R. G. Bhandarkar, *Early History of the Deccan*, 3rd ed., p. 106 f. Rice, *Mysore and Coorg from Inscriptions*, pp. 78 f.

88. Khairha plates,

tury, as is evinced by the following verse occurring in the Udaipur temple inscription of the Rāṇā Kumbha :<sup>89</sup>

*sva-r-dhenur=na dhinoti n=āmara-tarus=toṣaṁ vidhatte na vā  
citte rohati rohaṇo'=pi na manaś=Cintāmaṇau mādyati |  
vṛttir=yatra na celaso='pi vitaraty=etāvad=urvī-patau  
śrī-Kumbhe katamas=tu Karṇa-mahimā Bhoje ca kīḍṛg=jayaḥ ||*

#### POSTSCRIPT.

The above pages were written in 1936, after which a very important inscription of the reign of Karṇa has been brought to light and published.<sup>90</sup> This stone inscription is now lying in the old palace at Rewa, but it might have been brought there from Gurgi.<sup>91</sup> The inscription gives the eulogy of the Kalacuri kings from Lakṣmaṇarāja to Karṇa and then proceeds to give a legendary account of the origin of the Kāyasthas and finally the genealogy of a minister of Karṇa who built a temple of Śiva.

The inscription has four verses about Gāṅgeya, of which one is entirely new and another one occurs in the Goharwa plates with reference to Karṇa. The new verse seems to refer to some campaigns of Gāṅgeya near the sea-coast ; most probably this is an allusion to his conquests in Orissa. Of the other two verses already known to us from the Goharwa plates one refers to his victory over Kīra, Aṅga and Kuntala,<sup>92</sup> and the other to his munificence.

About Karṇa the inscription has twelve verses, of which six occur in the Goharwa plates and may, therefore, be left out of account here. In the new verses it is stated that the 'eastern king' sank when he struck against Karṇa, and that Karṇa brought about misery to the Gurjara land. The former statement has no doubt reference to Karṇa's eastern campaign mentioned above ; and the second one

89. *Bhavnagar Inscriptions*, p. 120. As Karṇa is mentioned along with Bhoja, he must be the Kalacuri king and not the *Mahābhārata* here.

90. *Ep. Ind.*, Vol. XXIV, p. 101.

91. *An. Rep. Arch. Surv. Ind.*, 1935-36, p. 89.

92. It has been said above that the Khairha plates call Gāṅgeya Vikramāditya and refer to his victory over the Kuntala, who has been identified with the Cālukya Jayasinha II. By construing the verse in a particular (and unconvincing) manner it has been suggested that Gāṅgeya won victory not over Jayasinha II, but over his elder brother Vikramāditya (V), *Ep. Ind.*, Vol. XII, p. viii.

probably alludes to his Gujrat campaign. It has been suggested above on the basis of Merutuṅga and Hemacandra that Kaṇṇa and his contemporary Cālukya king Bhīma I allied themselves against Bhoja and fell out later on. As the present inscription is dated A.D. 1148-9, it seems that the alliance between the two kings was preceded by a period of hostility in which Kaṇṇa may have achieved some success.

Another verse speaks of Kaṇṇa's victories over the southern powers, Kuntala, Pallava and Kāñcī. As the editor of the inscription points out, these facts are stated in a conventional metaphor; this fact, together with the mention of the Pallavas, who were non-existent at this time, makes one suspicious of the historical significance of this verse. But, as has been pointed out above, Kaṇṇa's hostile relations with Kuntala (under the Cālukyas) and with Kāñcī (under the Colas) are attested to by other sources of information.

The name of the Kāyastha minister of Kaṇṇa who built a temple and set up this inscription is lost. The record is dated 800=A.D. 1148-9.

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# JĪVATATTVA-PRADĪPIKĀ ON GOMMAṬASĀRA :

## ITS AUTHOR AND DATE<sup>1</sup>

By A. N. UPADHYE

So far two Sanskrit Commentaries on *Gommaṭasāra* have come to light : the first is *Mandaṭprabodhikā* (MP) and the second *Jīvatattva-pradīpikā* (JP); and both of them have been published in the Calcutta edition<sup>2</sup> of *Gommaṭasāra* (GS) along with the Hindī commentary, *Samyagjñānacandrikā* (SC) of Toḍaramalla. The Calcutta edition gives MP upto gāthā No. 383 of Jivakāṇḍa, though certain Foot-notes of the Editors<sup>3</sup> indicate that they had some more portion with them. Abhayacandra is the author of MP, and it is a matter still to be decided whether Abhayacandra completed his commentary or left it incomplete. In this paper I propose to give some details about JP and discuss the problem of its authorship and date.

At present JP is the only complete and exhaustive Sanskrit commentary available on GS. In fact the credit of making the study of GS sufficiently popular goes to JP. All the modern translations of GS<sup>4</sup> in Hindī, English and Marāṭhī are based on the Hindī SC of Toḍaramalla, and this in its turn merely elaborates all that is given in JP. JP follows MP in many details : most of the technical details given by MP are bodily adopted by JP, at times even by mentioning the name of Abhayacandra ;<sup>5</sup> the opening Sanskrit verses in JP, at the beginning of each section, are modelled on those found in MP ; and in the commentary on gāthā 383 of the Jivakāṇḍa<sup>6</sup> JP plainly says that it would hereafter follow only the Karmāṭa-Vṛtti because the commentary written by Abhayacandra comes to a stop. As I have

1. This essay is prepared during my tenure of the Springer Research Scholarship, University of Bombay.

2. Gāndhī-Haribhāi-Devakaraṇa Jaina Granthamātā, 4, Calcutta; this is referred to as Calcutta edition in this paper.

3. See pp. 615, 898, 1038 etc. of Karmakāṇḍa, Calcutta ed.

4. For the various eds. of *Gommaṭasāra*, see my paper 'Material on the interpretation of the word Gommaṭa' in IHQ., Vol. XVI, Poussin Number.

5. See the Commentary on Jivakāṇḍa 13, quoted below.

6. The numbers of gāthās are given according to the Calcutta edition.

noted by a cursory reading, JP quotes nearly one hundred verses,<sup>7</sup> Prākṛit and Sanskrit, besides a couple of Prākṛit extracts<sup>8</sup> and a few prose Sūtras etc. Many of them can be traced to their sources ; but as they stand in the commentary, they are quoted anonymously. Some authors<sup>9</sup> like Yativṛṣabha, Bhūtabali, Samantabdhra, Bhaṭṭākalaṅka, Nemicandra, Mādhavacandra,<sup>10</sup> Abhayacandra and Keśava Varṇi are mentioned ; and texts<sup>11</sup> like *Ācārāṅga*, *Tattvārthavivaraṇa*, [*Prameya-kamala*-] *Mārtanḍa* are referred to. On account of its detailed explanations and elaborate charts and tables JP is a valuable source of information on various points suggested and discussed in *Gommaṭasāra*.

JP is not an independent composition : in fact the opening verse tells us that it is written [taking material] from a Kaṇḍā Vṛtti about the identification of which we shall see below. MP has been fully used ; and when MP comes to a stop, JP clearly states that it would follow the Kaṇḍā Vṛtti thereafter :

श्रीमदभयचन्द्रसैद्धान्तचक्रवर्तिविहितव्याख्यानं विश्रान्तमिति कर्णाटवृत्त्यनुरूप-  
मयमनुवदति<sup>12</sup> ।

The authorship of Sanskrit JP has been almost a riddle. The following Caupāi of Todaramalla<sup>13</sup> is enough to indicate that he believed that JP was written by Keśava Varṇi :

केशववर्णी भव्यविचार कर्णाटकटीका अनुसार ।

संस्कृतटीका कीनी एहु जो अशुद्ध सो शुद्ध करेहु ।

There are similar remarks elsewhere too in his SC which point to the same thing. This view has been accepted and expressed by various scholars who have come to write about GS. Pt. KHUBA-

7. Calcutta ed. Jivakāṇḍa pp. 2, 3, 42, 51, 182, 185, 284, 289, 290, 341, 382, 391, 523, 687, 688, 731, 760, 795, 881, 884, 951, 965, 990, 991, 992, 993, 994, 1006, 1009, 1017, 1022, 1024, 1033, 1097, 1147, 1155, 1191, 1197; Karmakāṇḍa pp. 30, 50, 708, 717, 718, 729, 742, 744, 753, 788, etc.

8. Calcutta ed. Jivakāṇḍa pp. 61, 1080. The Prākṛit quotation on p. 1080, I learn from Prof. Hiralal, is found in *Dhavalā*.

9. Calcutta ed. pp. 616, 795, 663, 648, 178, etc., 36, 752, etc., of the Jivakāṇḍa.

10. Mādhavacandra has added some supplementary gāthās to Gommaṭasāra, so he is so often referred to.

11. Calcutta ed. pp. 760, 660, 649 of the Jivakāṇḍa.

12. Calcutta ed., Jivakāṇḍa p. 812.

13. Calcutta ed. Jivakāṇḍa p. 1329; in other contexts too he has mentioned this, see p. 756 of Jivakāṇḍa and p. 2096 of Karmakāṇḍa.

CANDRA<sup>14</sup> not only attributes Sanskrit JP to Keśava Varṇi, but goes also a step further and remarks that the Kaṇṇāṭaka Vṛtti mentioned by JP is that of Cāmuṇḍa Rāya to which reference is made by the name Vīra-mārtaṇḍi in GS, Karmakāṇḍa, gāthā No. 972. Similar views have been expressed by Pt. MANOHARLAL,<sup>15</sup> Prof. GHOSHAL,<sup>16</sup> Mr. J. L. JAINI,<sup>17</sup> Śrīmān GANDHI<sup>18</sup> and others. The editors of the Calcutta ed. of *Gommaṭasāra* attribute JP to Keśavavarṇi on the face-page.

Thus Toḍaramalla and his successors in the field have held the view, without any doubt, that Keśava Varṇi is the author of the Sanskrit JP. Possibly the following verse, as printed in the Calcutta ed.,<sup>19</sup> is the ultimate basis for their view :

श्रित्वा कार्णाटिकीं वृत्तिं वर्णिश्रीकेशवैः कृतिः ।

कृतेयमन्यथा किञ्चिद् विशोध्यं तद् बहुश्रुतैः ॥

As this verse stands, only one construction is possible ; and we can easily understand the opinion of Toḍaramalla and his followers. But the readings of this verse are not absolutely authentic, because there are some Mss. of JP which give a different version altogether. We get the following verses from a Ms. of GS with JP in Śrī Ailaka Pan-nālāla Digambara Jaina Sarasvatī Bhavana, Bombay :<sup>20</sup>

श्रित्वा कार्णाटिकीं वृत्तिं वर्णिश्रीकेशवैः कृताम् ।

कृतेयमन्यथा किञ्चित्तद्विशोध्यं बहुश्रुतैः ॥

श्रीमत्केशवचन्द्रस्य कृतकर्णाटवृत्तितः ।

कृतेयमन्यथा किञ्चिच्चेत्तच्छोध्यं बहुश्रुतैः ॥

It is not clear to me why two verses of nearly the same contents are given and what the editor of the Report means by his remark 'pāṭhāntaram' which introduces these verses. The first verse supplies us with important variants as compared with the verse followed by Toḍaramalla ; and from these verses it is quite plain that the author of JP does not mention his name here, that he wrote his commentary

14. *Gommaṭasāra*, Karmakāṇḍa, Rāyacandra-Jain-Śāstramālā (Bombay 1928), Intro. p. 5.

15. *Gommaṭasāra*, Jivakāṇḍa (Bombay 1916), Introduction.

16. *Dravyasaṃgraha* (S.B.J. I., Arrah 1917), Intro. p. 41.

17. *Gommaṭasāra*, Jivakāṇḍa (S.B.J. V. Lucknow 1927), Intro. p. 7.

18. *Gommaṭasāra* with Marāṭhī Translation, Sholapur 1939, Preface p. 1.

19. Jivakāṇḍa p. 1329.

20. Report I, Vīra Saṃvat 2449, pp. 104-6.

from the Kaṇṇāṭaka Vṛtti of Keśava Varṇi, and that he expects the learned to correct his mistakes if there are any.

The evidence on the basis of which it was accepted that Keśava Varṇi is the author of Sanskrit JP is seriously undermined by the alternative readings of the verse. No other evidence, internal or external, is brought forth to show that Keśava Varṇi is the author of Sanskrit JP ; and further that this is based on the Kaṇṇāṭaka Vṛtti of Cāmuṇḍa Rāya is not at all proved. It is true that GS tells us that Cāmuṇḍa Rāya wrote a Deśī (which is understood as a Kaṇṇāṭaka Vṛtti) on GS ; JP mentions merely a Kaṇṇāṭaka Vṛtti, and there is no reference at all to Cāmuṇḍa Rāya ; no Ms. of Cāmuṇḍa Rāya's Vṛtti has come to light ;<sup>21</sup> and there is no possibility of proving that the Sanskrit JP is following the commentary of Cāmuṇḍa Rāya. Under these circumstances the alleged evidence to show that Keśava Varṇi is the author of Sanskrit JP is contradicted, and there is no evidence at all to say that this JP is following the Vṛtti of Cāmuṇḍa Rāya.

Now let us see who is the author of Sanskrit JP and what Kaṇṇāṭaka Vṛtti he is following. I am quoting below the relevant portions from the two Praśastis, one in verse and the other partly in prose and partly in verse, printed at the close of the Calcutta ed. of GS (pp. 2097-8):

- (i) यत् रत्नैस्त्रिभिर्लब्ध्वाहन्त्यं पूज्यं नरामरैः ।  
 निर्वाणन्ति मूलसंगोऽयं नन्द्यादाचन्द्रतारकम् ॥ ४ ॥  
 तत् श्रीशारदागच्छे वलात्कारगणोऽन्वयः ।  
 कुन्दकुन्दमुनीन्द्रस्य नन्द्यास्त्रायोऽपि नन्दतु ॥ ५ ॥  
 यो गुणैर्गणभृद्गीतो भट्टारकशिरोमणिः ।  
 भक्त्या नमामि तं भूयो गुरुं श्रीज्ञानभूषणम् ॥ ६ ॥  
 कर्णाटप्रायदेशेशमल्लिभूपालभक्तिः ।  
 सिद्धान्तः पाठितो येन मुनिचन्द्रं नम म तम् ॥ ७ ॥  
 योऽभ्यर्थ्य धर्मवृद्धयर्थं मह्यं सूरिपदं ददा ।  
 भट्टारकशिरोरत्नं प्रमेन्दुः स नमस्यते ॥ ८ ॥  
 त्रिविद्यविद्याविख्यातविशालकीर्तिसूरिणा ।  
 सहायोऽस्यां कृतौ चक्रेऽधीता च प्रथमं मुदा ॥ ९ ॥

सूरैः श्रीधर्मचन्द्रस्याभयचन्द्रगणेशिनः ।  
 वर्णिलालादिभव्यानां कृते कर्णाटवृत्तितः ॥ १० ॥  
 रचिता चित्रकूटे श्रीपार्श्वनाथालयेऽमुना ।  
 साधुसांगासहेसाभ्यां प्रार्थितेन मुमुक्षुणा ॥ ११ ॥  
 गोम्मटसारवृत्तिर्हि नन्द्याद् भव्यैः प्रवर्तिता ।  
 शोधयन्त्वागमात्किञ्चिद् विरुद्धं चेद् बहुश्रुताः ॥ १२ ॥  
 निर्ग्रन्थाचार्यवर्येण त्वैविद्यचक्रवर्तिना ।  
 संशोध्याभयचन्द्रे णालेखि प्रथमपुस्तकः ॥ १३ ॥<sup>22</sup>

- (ii) यमाराध्यैव भव्यौघाः प्राप्ताः कैवल्यसंपदः ।  
 श्रवतं पदमापुस्तं मूलसंग्रमुपाश्रये ॥ १० ॥  
 तत्र श्रीशारदागच्छे बलात्कारगणोन्वयः ।  
 कुन्दकुन्दमुनीन्द्रस्य नन्द्यादाचन्द्रतारकम् ॥ ११ ॥

तत्र श्रीमज्जिनधर्माब्धुधिवर्धनपूर्णचन्द्रायमानश्रीज्ञानभूषणभट्टारशिष्येण सौगतसांख्य-  
 कणादभिक्ष्वभपादप्रभाकरादिपरवादिगजगण्डभेरुण्डप्रभाचन्द्रभट्टारकदत्ताचार्यपदेन त्वैविद्य-  
 विद्यापरमेश्वरमुनिचन्द्राचार्यमुखात् कर्णाटदेशाधिनाथप्राज्यसाम्राज्यलक्ष्मीनिवासजनोत्तम-  
 मल्लिभूपालप्रयत्नाद् अधीतसिद्धान्तेन वर्णिलालाविहिताग्रहाद् गौर्जरदेशाच्चित्रकूट-  
 जिनदाससाहनिर्मापितपार्श्वप्रभुप्रासादाधिष्ठितेनामुना नेमिचन्द्रे णालपमेधसाऽपि भव्यपुण्डरी-  
 कोपकृतीहानुरोधेन सकलज्ञातिशिरःशेखरायमाणखण्डेलुवालकुलतिलकसाधुवंशावतंसजिन-  
 धर्मोद्धरणधुरीणसाहसांगसाहसहसाविहितप्रार्थनाधीनेन विशदत्त विद्यविद्यास्पदविशाल-  
 कीर्तिसहायादियं यथाकर्णाटवृत्ति व्यरचि ।

यावच्छ्रीजिनधर्मश्चन्द्रादित्यौ च विष्टपं सिद्धाः ।  
 तावन्नन्दतु भव्यैः प्रपठ्यमाना त्वियं वृत्तिः ॥  
 निर्ग्रन्थाचार्यवर्येण त्वैविद्यचक्रवर्तिना ।  
 संशोध्याभयचन्द्रे णालेखि प्रथमपुस्तकः ॥  
 इत्यभयनन्दिनामाङ्कितायाम् ।

22. The extract from the Bombay Ms. in the Ailaka P. S. Bhavana shows some minor variations.



To summarise the bare facts, we learn the following details about the author of JP from both these *Praśastis*; and they are confirmed by the Ms. in the Ailaka Pannālāla Sarasvatī Bhavana: The author of Sanskrit JP is Nemicandra<sup>23</sup> of the Mūla Saṁgha, Śāradā Gaccha, Balātkāra Gaṇa, Kundakunda Anvaya and Nandī Āmnāya. He was a *śiṣya* of Jñānabhūṣaṇa Bhaṭṭāraka. He was made a *sūri* or was given Ācārya-pada by Prabhācandra Bhaṭṭāraka who was a successful disputant-logician. It is through the efforts of the Jaina king Malli Bhūpāla of Kaṇṇāṭaka that he studied Siddhānta from Municandra who is styled Traividyaavidyā-parameśvara. Being pressed by Lālā Varṇi he came from Gaurjara country and stayed at Citrakūṭa in the temple of Pārśvanātha built by Jinadāsa Sāha. For the benefit of Dharmacandra, Abhayacandra and other pious people, and being requested by Sāha Sāṅga and Sāha Sahesa<sup>24</sup> of the Khaṇḍelavāla family, he wrote his commentary, namely Sanskrit JP, following the Kaṇṇāṭaka Vṛtti through the help of Traividyaavidya Viśālakīrti. We are told that the first copy was prepared by Abhayacandra who is called Nirgranthācārya and Traividya-cakravartin.

The metrical *praśasti* agrees with the prose *praśasti* in all the fundamental details, but it does not mention the author's name, viz. Nemicandra, which is clearly given by the prose *praśasti*. There being complete agreement in the details given and there being no conspicuous contradiction, one has to admit that Nemicandra is the author of JP according to the *Praśastis*.

Secondly, the colophons of JP at the close of the various sections of GS run thus:

इत्याचार्यश्रीनेमिचन्द्रविरचितायां गोम्मटसारापरनामपञ्चसंग्रहवृत्तौ जीव-  
तत्त्वप्रदीपिकायां etc.

Naturally -*viracitāyām* is an adjective of *Jivatattva-pradīpikāyām*; and so we will have to attribute the authorship of JP to Ācārya Nemicandra.

Thirdly, the phrase *ācārya-śrī-Nemicandra-viracitāyām* cannot go with *Gommaṭasāra*. This Ācārya Nemicandra is to be distinguished from Nemicandra Siddhānta-Cakravartin, the author of GS. In many places JP refers to the author of GS, and almost necessarily he is mentioned with his glorious title Siddhānta-Cakravartin.<sup>25</sup>

23. The metrical *Praśasti* is written in the first person, so this name is not mentioned.

24. The two *Praśastis* show some variant readings of these names.

25. See for instance p. 648 *Jīvakāṇḍa*, p. 600 *Kaṁmakāṇḍa* of the Calcutta ed.

Fourthly, the editor of the Ailaka Pannālāla S.B. Report plainly attributes JP to Nemicandra possibly from its colophons.

Fifthly, controverting the opinion that Jñānabhūṣaṇa is the author of Gommaṭasāra-tīkā Pt. NATHURAM PREMI<sup>26</sup> has shown that Nemicandra is the author ; and from the details given by him there it is clear that he has in view JP and its author.

Lastly, the absence of the mention of Nemicandra in the metrical praśasti does not prove anything positive ; nor can it support, by any stretch of imagination, the alleged authorship of JP by Keśava Varṇi. We know some details about Keśava Varṇi, and they do not agree with those given in these Praśastis.

Thus there is no evidence at all to say that Keśava Varṇi is the author of JP, but on the other hand the above points definitely show that Nemicandra is the author of JP, and he is not to be confounded with the author of Gommaṭasāra.<sup>27</sup>

As to the Karṇāṭaka Vṛtti followed by JP, the two verses quoted above definitely say that Keśava-varṇi's Vṛtti is being followed. Mss. of this Vṛtti are available today. I have examined a Ms. of this Vṛtti on Jivakāṇḍa belonging to Lakṣmīsenā Maṭha, Kolhapur.<sup>28</sup> The name of this Kannāḍa Vṛtti also is *Jīvatattva-pradīpikā*, and it is somewhat bigger than Sanskrit JP. It opens with many Kannāḍa verses composed by the author himself. Just as *Dhavalā* is composed partly in Prākṛit and partly in Sanskrit, this Vṛtti is partly in Kannāḍa and partly in Sanskrit (what is known as *maṇipravāḷa* style), especially at the beginning of it. Many Prākṛit quotations are found here and there. The gāthās of GS are supplied with Sanskrit Chāyā ; and the various etymological discussions are in Sanskrit.

Keśava Varṇi was a pupil of Abhayasūri Siddhānta-Cakravartin, and he wrote his Vṛtti at the order of Dharmabhūṣaṇa Bhaṭṭāraka in the Śaka year 1281 or A.D. 1359.<sup>29</sup>

I have compared Keśava-varṇi's Vṛtti with MP of Abhayacandra, and I feel convinced that Keśava Varṇi has fully availed himself of the work of Abhayacandra. I have been able to spot out at least one

26. *Siddhāntasārādi-saṅgraha*, Māṇikcandra D. J. Granthamālā 21, Bombay 1922, Intro. p. 12, footnote.

27. For the interpretation of this title see my paper 'Gommaṭa,' *Bhāratiya Vidyā*, Bombay, Vol. II.

28. It is a paper Ms. measuring 12.5×8.5 inches, and it contains 387, leaves. The date of the Ms. is given as Śaka 1206 which is apparently a scribes error, when we remember that Keśava Varṇi wrote his Vṛtti in Śaka 1281.

29. *Karṇāṭaka Kavacarite* (Bangalore 1924) pp. 415-16.

specific reference to Abhayacandra in the Kannaḍa Vṛtti of Keśava Varṇi.<sup>30</sup>

Comparing the Sanskrit JP of Nemicandra with the Kannaḍa JP of Keśava Varṇi, I find that the former is entirely based on the latter. Nemicandra has left out portions here and there; the Sanskrit portions are retained as they are ; and whatever is in Kannaḍa is literally rendered into Sanskrit. In the case of gāthās on which MP is not available there is nothing in Nemicandra's JP which is not found in the Kannaḍa JP of Keśava Varṇi ; and possibly it is for this reason that Nemicandra plainly says : *yathā-karṇāṭa-vṛtti vyaraci or karṇāṭa-vṛttitah*.

I may quote here one crucial extract (Jīvakāṇḍa gāthā No. 13) from the three commentaries which would show their mutual relation : *Mandaprabodhikā* :<sup>31</sup>

देशविरते प्रमत्तविरते इतरस्मिन्नप्रमत्तविरते च क्षायोपशमिकचारित्वलक्षण  
एव भावो वर्तते । देशविरते प्रत्याख्यानवरणकषायाणां सर्वघातिस्पर्धकोदयाभाव-  
लक्षणे क्षये, तेषामिव हीनानुभागरूपतया परिणतानां सद्वस्थालक्षणे उपशमे च,  
देशघातिस्पर्धकोदयसहिते उत्पन्नं देशसंयमरूपचारित्वं क्षायोपशमिकम् । प्रमत्त-  
विरते तीव्रानुभागसंञ्चलनकषायाणां प्रागुक्तलक्षणक्षयोपशमसमुत्पन्नसंयमरूपं प्रमाद-  
मलिनं सकलचारित्वं क्षायोपशमिकम् । अत्र संञ्चलनानुभागानां प्रमादजनकत्वमेव  
तीव्रत्वम् । अप्रमत्तविरते मन्दानुभागसंञ्चलनकषायाणां प्रागुक्तक्षयोपशमोत्पन्नसंयम-  
रूपं निर्मलं सकलचारित्वं क्षायोपशमिकम् । तुल्यदः असंयतादिष्ववच्छेदार्थः । स  
खलु देशविरतादिषु प्रोक्तक्षयोपशमिको भावः चारित्र्यमोहं प्रतीत्य भणितः तथा उपरि  
उपशमकादिषु चारित्र्यमोहं प्रतीत्य भणिष्यते ॥

५१०११

Kannaḍa JP of Keśava Varṇi :<sup>32</sup>

देशविरतनोल<sup>33</sup> प्रमत्तसंयतनोल इतरनप्य अप्रमत्तसंयतनोल क्षायोपशमिक  
संयममकुं । देशसंयतापेक्षेयिदं प्रत्याख्यानकषायंगलुदयिसलपट्टदेशघातिस्पर्धकानन्तैक-

30. See the extract given below.

31. Calcutta ed. p. 36.

32. Kolhapur Ms. p. 16.

33. This commentary is written in what is called Old-Kannaḍa ; even those who do not know Kannaḍa can easily compare this with Sk. JP ; and it is for this purpose that I have transcribed it in Devanāgarī characters. Much of it is Sanskrit written with Kannaḍa terminations. This is bound to happen, because the author is forced to use various technical terms which are all Sanskritic.

भागानुभागोदयदोडने उदयमनेय्ददे क्षीयमाणंगलप्पविवक्षितनिषेकंगल सर्वघातिस्पर्ध  
कंगलनंत बहुभागंगलुदयाभावल(क्षण)क्षयदोलमवरुपरितननिषेकंगलप्पनुदय प्राप्तंगलगे  
सदवस्थालक्षणमप्पुपशममु'टागुत्तिरल्लु समुद्भूतमप्पुदरिदं चारित्तमोहम' कुरितु देश-  
संयममदु क्षायोपशमिकभावमे'दु पेललपट्टदु । अंते प्रमत्ताप्रमत्तर्गं संज्वलनकषायंगल  
उदितदेशघातिस्पर्धकान्तैकभागानुभागदाडने उदयमनेय्ददे क्षीयमाणंगलप्पविवक्षितोदय  
निषेकंगल सर्वघातिस्पर्धकान्तबहुभागंगलुदयाभावलक्षणक्षयदोलमवरुपरितननिषेकंग-  
लप्पनुदयप्राप्तंगलगे सदवस्थालक्षणमप्प उपशममु'टागुत्तिरल्लु समुत्पन्नमप्पुदरिदं  
चारित्तमोहम' कुरितिल्लियुं सकलसंयममुं क्षायोपशमिकभावमे'दु पेललपट्टुदे'बुदु श्रीयभय-  
सूरिसिद्धान्तचक्रवर्तिगलभिप्राय' । अहंगेमेयु अपूर्वकरणादिगुणस्थानंगलोल' चारित्त-  
मोहनीयमने कुरितु तत्तद्गुणस्थानंगलोलु भावंगलरेयलपट्टुबुदु ॥

Sanskrit JP of Nemicaṇḍra :<sup>31</sup>

देशविरते प्रमत्तसंयते तु पुनः इतरस्मिन् अप्रमत्तसंयते च क्षयोपशमिक-  
संयमलक्षणो भावो भवति । देशसंयतापेक्षया प्रत्याख्यानावरणकषायाणां उदया-  
गतदेशघातिस्पर्धकान्तबहुभागानुभागोदयेन सहानुदयागतक्षीयमाणविवक्षितोदयनिषेक-  
सर्वघातिस्पर्धकान्तबहुभागानामुदयाभावलक्षणक्षये तेषामुपरितननिषेकाणां अनुदय-  
प्राप्तानां सदवस्थालक्षणोपशमे च सति समुद्भूतत्वात् चारित्तमोह' प्रतीत्य देशसंयमः  
क्षायोपशमिकभाव इत्युक्तम् । तथा प्रमत्ताप्रमत्तयोरपि संज्वलनकषायाणामुदयागत-  
देशघातिस्पर्धकान्तैकभागानुभागेन सह अनुदयागतक्षीयमाणविवक्षितोदयनिषेकसर्व-  
घातिस्पर्धकान्तबहुभागानां उदयाभावलक्षणक्षये तेषां उपरितननिषेकाणां अनुदय-  
प्राप्तानां सदवस्थालक्षणोपशमे च सति समुत्पन्नत्वात् चारित्तमोह' प्रतीत्यात्तापि सकल-  
संयमोऽपि क्षायोपशमिको भाव इति भणितं इति श्रीमदभयचन्द्रसूरिसिद्धान्तचक्रवर्त्यभि-  
प्रायः । तथा उपर्यपि अपूर्वकरणादिगुणस्थानेषु चारित्तमोहनीय' प्रतीत्य तत्तद्गुण-  
स्थानेषु भावा ज्ञातव्याः ॥

It is clear from these extracts how closely Nemicaṇḍra follows Keśava Varṇi, how the Kannaḍa style of Keśava Varṇi is full of Sanskrit words and could be easily rendered into Sanskrit, and how both Keśava and Nemicaṇḍra refer to Abhayacandra.

As to the dates of these commentaries, MP is earlier than A.D. 1359 when Keśava Varṇi finished his Vṛtti. In his MP Abhayacandra

refers to one Bālacandra Paṇḍitadeva<sup>35</sup> whom I am inclined to identify with Bārendu Paṇḍita mentioned in a Śravaṇa Belgola Inscription<sup>36</sup> of A.D. 1313; and if it is accepted we are able to push back that date some fifty years earlier. Further I find from their titles and some minor details given therein that our Abhayacandra and Bālacandra are indetical, in all probability, with those glorified in Belur Inscriptions<sup>37</sup> which inform us that Abhayacandra passed away in A.D. 1279 and Bālacandra in A.D. 1274. So we can tentatively assign MP of Abhayacandra to the third quarter of the 13th century A.D.

Nemicandra has not mentioned the year when he finished his JP. As he closely follows Keśava Varṇi's Vṛtti, his JP is later than A.D. 1359; and further it is earlier than Saṁvat 1818, or A.D. 1761, because in this year Toḍaramalla finished his Hindī rendering of Sanskrit JP.<sup>38</sup> This period is still a wide range, and let us see whether these two limits can be brought nearer. Nemicandra has mentioned the names of many of his contemporaries like Jñānabhūṣana, Municandra, Prabhācandra, Viśalakīrti etc.; but these names are so often repeated in the case of Jaina teachers and monks that any identification based on the mere similarity of name has no value at all; and if there is no other evidence, such identifications should not be attempted even. His reference to Malli Bhūpāla is of special significance. He is mentioned as a king of Karṇāṭaka and a Jainottama.<sup>39</sup> Between A.D. 1359 and 1761 we are not aware of any outstanding Jaina king of Karṇāṭaka; and so we will have to understand that Malli Bhūpāla was perhaps a ruler of some minor state in Karṇāṭaka. Turning to Jaina literary references, I find that one Malli, a ruler, is often associated with some Jaina authors. According to Śubhacandra Gurvāvali, Vijayakīrti (beginning of the 16th century A.D.) was respected by king Malli.<sup>40</sup> Being a contemporary of Vijayakīrti he might be put at the beginning of the 16th century. We are not given any details about his place and faith. Secondly, Vidyānandasvāmī,<sup>41</sup> the pupil of Viśalakīrti, is said to have been worshipped by Malli Rāya; and this Vidyānanda<sup>42</sup> passed away in A.D. 1541. This also indicates that

35. Calcutta ed. Jivakāṇḍa, p. 150.

36. *Epigraphia Carnatica* II. No. 65.

37. *EC.* V. Nos. 131-33.

38. *Jaina Hitaishi*, Vol. 13, p. 22.

39. See the Praśastis above.

40. *Jaina Siddhānta Bhāskara* I, 4, p. 54; also *Annals of the Bhandarkar O.R.I.* XIII, i, p. 41.

41. *Jaina Siddhānta Bhāskara* V, 4, pp. 125, 128 etc. of *Praśastisaṁgraha*.

42. Dr. B. A. SALETOR has thrown a good deal of light on the personality and activities of Vidyānanda; see *Medieval Jainism* (Bombay 1938), pp.

there was one Malli king at the beginning of the 16th century. The Humch inscription makes the point further clear that this king associated with Vidyānanda is called Sāḷuva Malli Rāya.<sup>43</sup> This brings us on a historical ground from merely traditional legends. Sāḷuva kings ruled over a portion of Kanara district and they professed Jainism.<sup>44</sup> Malli Bhūpāla is a Sanskritised form of Malli Rāya; and I feel no doubt that Nemicandra is referring to Sāḷuva Malli Rāya, though he has not mentioned the family. Being mentioned in a record of 1530 A.D., we may put Sāḷuva Malli Rāya in the first quarter of the 16th century, and this agrees well with his being associated with Vijayakīrti and Vidyānanda. Thus Nemicandra being a contemporary of Sāḷuva Malli Rāya, we can assign the composition of Sanskrit JP to the beginning of the 16th century A.D.

Pt. PREMI<sup>45</sup> has referred to another *praśasti* of Nemicandra's JP which was published in *Jaina Mitra*, 26th August, 1915. The details given by him are covered by my summary of the two *Praśastis* given above. He does not refer to Malli Bhūpāla. As he has not given any extracts, we do not know whether this item is omitted by him or was not at all included in that *praśasti*. One important fact noted by Pt. PREMI from that *praśasti* is that the Sanskrit JP was finished in 2177 Vīra-nirvāṇa Samvat, which, according to the present calculation, stands for A.D. 1650. This date cannot make Malli Bhūpāla and Nemicandra contemporaries. As the actual *praśasti* is not quoted, it is difficult to judge the merits of this reference. In all probability, A.D. 1650 is the date of the completion of a later Ms. of JP and not of the completion of JP itself.

To conclude, Keśava Varṇi is not the author of Sanskrit JP; there is no evidence to say that the Sanskrit JP is based on the Kaṇṇaṭaka Vṛtti of Cāmuṇḍa Rāya on GS; Nemicandra, who is to be distinguished from the author of GS, is the author of the Sanskrit JP, and his JP is heavily indebted to the Kannaḍa JP written by Keśava Varṇi in A.D. 1359; and being a contemporary of Sāḷuva Malli Rāya, Nemicandra (and his JP) should be assigned to the beginning of the 16th century A.D.

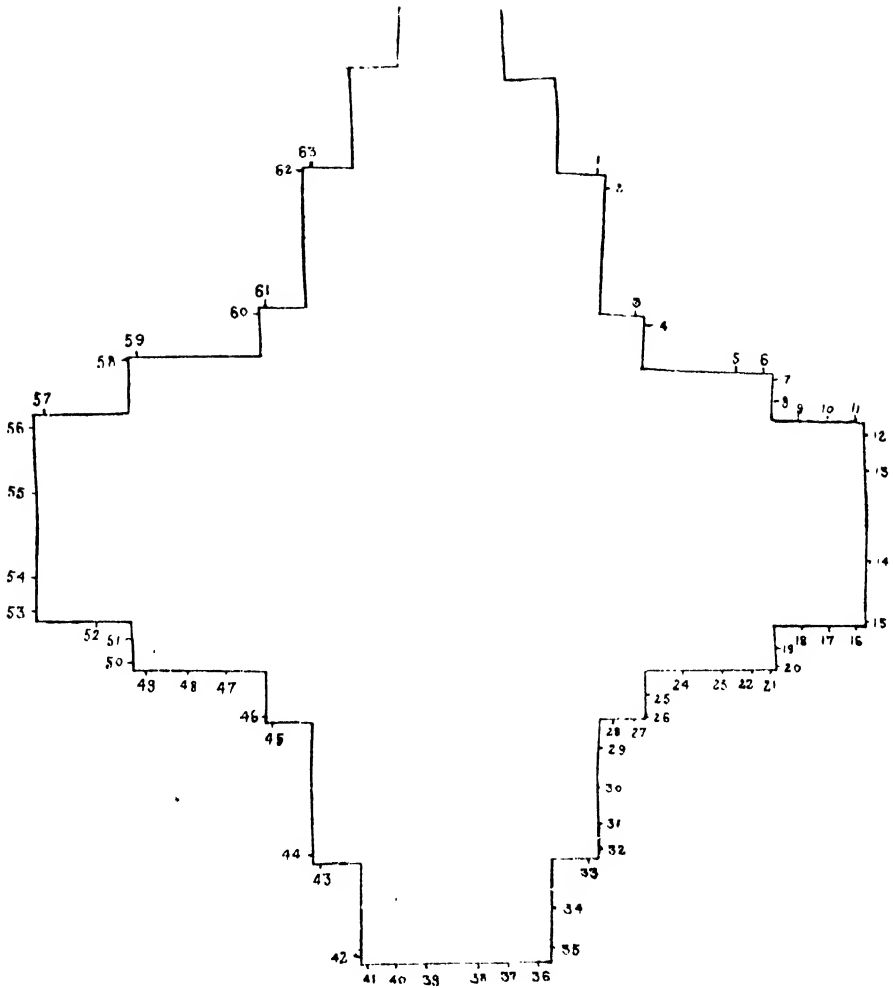
371 etc.; 'Delhi Sultans as Patrons of Jaina Gurus of Kaṇṇaṭaka' in the *Karnataka Quarterly*, IV, 1-2, pp. 77-86; 'Vādi Vidyānanda' in *The Jaina Antiquary*, IV. I. pp. 1-20.

43. EC. VIII, Nagar No. 46.

44. EC. VIII, Intro. pp. 13-4; *Mysore and Coorg* from the Inscriptions (London 1909) pp. 152-53; *Medieval Jainism* pp. 318 etc.

45. *Siddhāntasārādī-saṃgraha*, Bombay 1922, Intro. p. 12.





Sketch plan of the distribution of stone sculptures at Paharpur.  
(*Vide* Article: The Date of the Paharpur Temple.)





## THE DATE OF THE PAHARPUR TEMPLE

By S. K. SARASWATI

Almost in the centre of the immense quadrangle of ruins at Paharpur (Rajshahi district, Bengal), which formed the far-famed monastery of Somapura founded by *Mahārājādhirāja* Dharmapāla-deva, there stand the remains of a colossal structure, measuring as much as 356' 6" from north to south and 314' 3" from east to west. In spite of the fact that the whole superstructure has toppled down, the lofty building still rises to a perpendicular height of about 70' from the surrounding ground level. The monument, which, all the scholars agree, represents the ruins of a temple, is not only vast in dimensions but also presents novel features, both as regards plan and general arrangement and appearance. The ground plan consists of a gigantic square cross,—the longest arm being occupied by the main staircase to the north,—with angles of projections in between the arms. The temple itself, as it has come out of the excavations, rises in three terraces with a circumambulatory walk, enclosed by a parapet wall around, in each upper terrace. The plan of each upper terrace is more or less parallel to the ground plan, but the number of angular projections on the four sides naturally grew smaller at each higher stage. Unfortunately the huge structure in its present state of preservation is fragmentary and it is difficult now to ascertain the method of roofing of the different terraces or the form of the superstructure of the main shrine, which presumably occupied the topmost terrace.<sup>1</sup>

But though complex in plan as well as in elevation, there is no doubt that the whole monument, from the basement to the topmost shrine, was the result of a pre-meditated well-ordered scheme and belonged to a single period of construction. There are evidences of later repairs, renovations and even of minor additions, but these did not affect the fundamental arrangement and plan, as described above. It is surprising that no record describing the erection and consecration of such a stupendous monument has been discovered in course of the excavations. One has, therefore, to look for other possible indications for ascertaining the date of the construction of the edifice. The structure itself, as it now stands, is certainly of a very rare type,

1. *Mem., ASI.*, no. 55. *Excavations at Paharpur* by K. N. Dikshit,

that had been quite unknown until the very recent years.<sup>2</sup> Hence no comparison with similar examples of known date, which might have given a clue as regards its probable period of construction, is possible. Nor can we form any idea as regards its possible age from the standpoint of architectonic evolution, because as an architectural type the temple is just new to us, and the different evolutionistic stages of the type, from its origins to its final ramifications, are as yet obscure.

In the absence of any evidence, either epigraphic or architectonic, scholars have depended on the evidences of plastic art, that embellish the walls of the temple in the basement and in the upper terraces, for ascertaining its date. It is well known that terracotta plaques, bearing relief sculptures, run in a single row around the basement walls and in double rows around the circumambulatory passages in the upper terraces. The basement walls further show a number of stone sculptures in alto-relievo, set at intervals in niches cut in the wall, all round. It is needless to say that it is the evidence of these stone sculptures which should form the chief criterion in fixing the date of this colossal structure.

But here too serious difficulties confront us. As the present author has shown elsewhere,<sup>3</sup> the stone sculptures round the basement walls of the monument are extraordinarily varied in style and can be divided into three distinct groups, which have to be assigned again to at least two different periods. The first two groups are to be placed in the late-Gupta epoch, definitely not later than the 7th century A.D., while the third can hardly be dated before the 8th. As already stated, the main fabric of the temple belongs to a single period of construction and the presence of sculptures of two different periods, not to speak of different styles, is an intriguing problem, that has to be satisfactorily accounted for.

But this is a point that has been overlooked by scholars, who have hitherto discussed the question. The presence of not a few sculptures of definitely late-Gupta style have led them to refer the scheme of embellishment of the basement walls to the late-Gupta epoch, to which period the construction of the temple has been naturally assigned.<sup>4</sup> As the majority of these early sculptures pertain to

2. Remains of a building of similar plan have recently been laid bare at Lauriya Nandangarh in North Bihar. *Ann. Bib. Ind. Arch.*, 1936, p. 4.

3. S. K. Saraswati, "Early Sculpture of Bengal," *Journal of the Department of Letters*, Calcutta University, Vol. XXX, pp. 33-41.

4. *A.S.A.I.R.*, 1927-28, p. 39.

Brahmanical subjects, some scholars have even gone so far as to infer that the temple itself belonged to the Brahmanical faith before Dharmapāla established a monastery around it. When we remember that a document of still earlier period, pertaining to a Jaina institution in the neighbourhood, found a place in the archives of the later edifice,<sup>5</sup> it appears strange that no memory even of the construction of this huge structure had been preserved.

It is definite from the inscriptions on a set of clay sealings that the monastery around the temple was founded by Dharmapāla, the second Pāla king, about the latter part of the 8th century A.D. It is reasonable and quite likely hence that the temple, standing in the centre of the monastic quadrangle, also owed its origin to the same monarch, and that the construction of the monastery and that of the temple, an important member of the same establishment, were carried out simultaneously. But how are we to explain the problem of the occurrence of earlier and professedly Brahmanical sculptures in a Buddhist temple of subsequent date? Mr. K. N. Dikshit, who has recently changed his previous opinion of a late-Gupta date in favour of one in the time of Dharmapāla,<sup>6</sup> seems to have missed the point. It does not appear to have occurred to him.

There are as many as 63 stone sculptures decorating the basement walls of the temple. The great diversity in the style of the sculptures, their separation in point of chronology, and the fact that they do not always exactly fit in with their respective niches are sure to lead to serious doubts whether the sculptures that can now be seen around the basement were all fixed at one single period according to a well-arranged scheme. Mr. Dikshit has published in his memoir a sketch plan of the distribution of the sculptures around the basement walls.<sup>7</sup> A glance at this sketch plan is enough to show that the sculptures occupy niches placed at irregular intervals that can in no way reflect the original scheme of decoration. The uniform plan of the basement and of the upper terraces leaves no doubt as to the fact that the decorative scheme must have been conceived in a logical and well-ordered fashion. A detailed analysis of sculptural distribution, however, will readily bring out glaring irregularities that are incongruous with the uniform plan and ar-

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5. The copperplate inscription, dated 159 G.E. (478-79 A.D.), recording land-grants to the Jaina monastery of Guhanandin at Vaṭagohālī (identified with modern Goālbhitā, a village contiguous to Paharpur), has been found inside a *maṇḍapa* of the temple. *A.S.I.A.R.*, 1927-28, p. 107.

6. *Mem., A.S.I.*, 55, p. 37.

7. *Ibid.* Pl.

rangement of the temple. If we divide the monument into two equal halves we would find that the northern half of the basement has only 22 niches filled in with sculptures, while the southern half has as many as 41. Take the other way. The western half shows only 25, but the eastern half 38. Such incongruities are also clear in the disposition of the sculptured niches between the arms of the cross, viz., 7 in the north-west sector, 11 in the north-east, 20 in the south-east and 11 in the south-west. One may expect some sort of symmetry and regularity in the decoration of the main walls at the three cardinal points (excepting the north that shows the main staircase), but there too similar discrepancies appear, namely 4 each in the eastern and western walls and 6 in the southern. We are practically lost in the midst of such varied incongruities.

A still closer analysis, however, reveals the fact that it is only the projecting angles that are invariably provided with sculptured niches on both faces. There are as many as 20 projecting angles and, leaving aside the two front corners, just on either side of the main staircase to the north, we find that all the 18 others exhibit niches on both faces, bearing sculptures, except at the southern end of the main western wall, where there is no corresponding sculpture facing south. Our official reports are deficient in the sense that, in spite of the seriousness that one should naturally attach to this omission, they do not clearly set forth whether such an instance is really an omission or that any particular sculpture has been missing from its place. When we remember that it is this particular side that has suffered most from damage the latter case may not have been improbable.

We may take it therefore that according to the original scheme of decoration it is only the projecting angles that had been provided with sculptures on both faces. But the niches intermediate between the angular projections, as we find them now, are most unequally distributed, there being no intermediate niche in the north-western sector and only four each in the north-eastern and south-western, while they occur most frequently in the south-eastern. Mr. Dikshit has tried to explain this clear irregularity by attributing the comparative absence of the intermediate niches on the northern half of the monument to the absence of direct sun-light in the north and to the limited number of available stone reliefs.<sup>8</sup> But none of the explanations seems to be plausible enough. The former fails to explain the obvious irregularity in the distribution of sculptures in the sectors between the arms of the cross. No two sectors had been evenly and equally distri-

8. *Ibid.* p. 9.

buted. The latter admits the fact that the sculptures were not all executed according to the needs of the decorative scheme following a uniform plan, but had been collected and gathered, in all probability from earlier edifices in the neighbourhood. Again, if all the stone sculptures that we see now had been available at the time of the construction of the Paharpur temple, one would naturally expect a better and more even distribution of them around the basement walls of the monument.

The foregoing analysis leads us to the evident conclusion that the intermediate niches and sculptures, whether on the main walls or between the projecting angles, did not form part of the original plan, which admits of stone sculptures only at the angular projections, one on each face, as *pièces d'accent*. Such an inference gains further strength when we find that the sculptures in these projections are almost always of approximately the same size, executed in the same kind of stone, pertain to the popular narrative themes (having hardly any cult significance at all) and belong to a popular idiom of art, quite distinguished from the classical and hieratic, but intimately related to the vast number of terracottas—undoubtedly part of the original decorative scheme—stylistically as well as iconographically. These sculptures, datable in the eighth century A.D., come in the logic of a planned decorative arrangement, but primarily as binding the projecting angles of the stupendous brick monument, and the construction of the main temple in all its essential elements to the period of Dharma-pāla in the latter part of the 8th century A.D. can easily be postulated. The intermediate niches, mostly fitted in with sculptures of Brahmanical deities, appear to have been provided for in later times, to accommodate sculptures as they have been gathered, it may be even piecemeal, from earlier monuments at the site or in the neighbourhood. When we take into account the eclectic nature of the Paharpur establishment in the later phase of its existence, the subsequent fixing up of Brahmanical sculptures on the walls of the temple, an avowedly Buddhist monument, might be attributed to the followers of that faith, who had already begun to frequent and even reside within the establishment.<sup>9</sup> During the long life of the buildings at Pahar-

9. The majority of the monastic cells, which originally were meant for residential purposes, exhibit in the uppermost strata, i.e., in the later phases of occupation, ornate pedestals, in which there occasionally remain *in situ* Brahmanical sculptures, thus proving adequately the fact that in the later periods followers of the Brahmanical faith had already begun to frequent the establishment.

pur, necessitating successive periods of repairs and renovations, it is only reasonable to apprehend that the existing niches were more than once disturbed and that even new ones were added. Such circumstances are unavoidable in respect of an institution that had a long history covering a period of several centuries, and it is no wonder that some sculptures of the earlier group would now appear at the projecting angles,<sup>10</sup> that pieces which can be definitely recognised as belonging to the angular projections would be found placed in intermediate niches, or that reliefs belonging to the basement decoration would be picked up from the upper stratum in the monastic cells.

10. Of the 36 angle-niches some 5 or 6 contain sculptures of the earlier group. Their incongruity with their respective niches and their divergence from other angle-pieces in size, style, date, subject matter, material, etc. leave no doubt about their being substituted in later periods.

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## SOME JAIN TEACHERS IN ŚRĀVAṆA BELGOLA INSCRIPTIONS

By V. R. RAMACHANDRA DIKSHITAR

Some of the inscriptions<sup>1</sup> at Śrāvaṇa Belgola contain references to Jain heirarchy and the succession of Jain gurus in South India. The order followed may be tentatively stated : Kundakunda, (Koṇḍakunda), Ḡṛdhrapiṇḍa (Umāsvāti), Balākapiṇḍa, Samantabhadra, Śiva-koṭi, Devanandi or Pūjyapāda, Akalaṅka and others. In the history of the spread of Jainism in the south, almost the first place is taken by Kundakunda (the inscriptions invariably spell him Koṇḍakunda), the reputed author of the Pañcāstikāyasāra. In an historical introduction to this work Professor Chakravarti identified this Kundakundācārya whose original name was Padmanandī with the celebrated author of the Tamil work Tirukkuraḷ. The authorship of the Tirukkuraḷ is still a bone of contention, and it is indeed very difficult to accept the identification of Kundakunda with Tiruvalluvar. There is a tradition which is not fully corroborated that Tiruvalluvar composed the Kuraḷ under the patronage of one Elālasīṅgha. It is contended that Elālasīṅgha may be Elācārya, and Elācārya is another name for Kundakunda,<sup>3</sup> though this is questioned. Assuming this identification possible, the contention loses all its force, especially when it hangs on a slender thread of late tradition and on doubtful identity of names. Again, however much it may be argued that the teachings of the Kuraḷ breathe the lofty Jaina philosophy and religion, still it has been demonstrated with equal force that the Kuraḷveṇbas show the author to be a devout follower of the established religion of the land, in other words, a follower of the Brahmanical religion. But apart from the identification of the author of the Kuraḷ with Kundakunda, one thing is certain that Kundakunda was a great Jain ācārya, who flourished in the south (Dakṣiṇadeśa) about the 1st century A.D. We would

1. See, for instance, No. 47 of 1115.

2. Edited with translation by A. Chakravarti Nayanar, 1920.

3. Other names for the same ācārya are Vakragrīva, Ḡṛdhrapiṇḍa. SIL. i. p. 152. One view is that Vakragrīva and Ḡṛdhrapiṇḍa were other than Kundakunda.

4. See my *Studies in Tamil Literature and History* : chap. on *Tiruvalluvar*.



not be far wrong if we would surmise that he was the immediate or the very next to the immediate successor of Guptiguṇa. And this would fit in with the tradition which fixes B.C. 8 as the date of his accession to the pontifical chair at the age of 44.<sup>5</sup> According to one version he was only thirty-three at the time.

The date of the ācārya is thus fixed. Scholars assign him to different periods ranging from the third century B.C. to the sixth century A.D.—all on insufficient data. The identification of king Śiva Kumāra for whom Kundakunda is said to have written his books, with Pallava king Śivaskanda or the Kadamba king Śivamṛgeśavarman is purely conjectural and has no basis in fact. Śivakumāra must have been a petty chieftain who can not be identified. Whatever that may be, that he flourished in the early half of the first century B.C. can be reasonably accepted.

Kundakunda then was a great monk of the Digambara sect of the Jains. Three of the four Digambara Saṅghas of the south trace their lineage to this distinguished ācārya. These three are Nandisaṅgha, Siṃhasaṅgha and Śrī Yāpanīyasaṅgha. The fourth saṅgha called Mūlasaṅgha claims descent from the monk Vṛṣabhasena. His name is, however, associated with the Mūlasaṅgha as its leader.<sup>6</sup>

Besides the Pañcāstikāya, the other two works are Pravacanasāra and Samayasāra, works composed in Prākṛit. Of these the Pravacanasāra has been edited by Professor A. N. Upadhye (1935, Bombay). Tradition attributes a number of other minor works to its author.<sup>7</sup> A word may be said on his chief works. Pañcāstikāya is a discourse on Samaya or Samavāya manifesting itself in five *astikāyas* soul, matter, dharma, adharma and space. The Pravacanasāra has been well said to be an academic treatise and a practical manual for a novice who wants to enter the order of Jain monks. Emphasis is laid on spiritual contemplation as a preparation for an ascetic life. The other work Samayasāra is a treatise on the liberation of the soul from the material kāmās and realisation of the self. He who realises this is termed a jñānin. The commentators who have written elaborate glosses on these three above-mentioned works have rightly designated them by the common name Nāṭaka-trayī. Each is capable of being treated as a dramatic composition.

The next name in the list of ācāryas is Umāsvāti. Perhaps Umāsvāti was the successor of Kundakunda to the pontifical throne. Re-

5. Intro. p. vii; see also Śr. Bel. Ins. 105. (EC. ii. 154 dated 1398).

6. EC. ii. 69.

7. *Ibid.* See Intro. pp. 26 ff.

lying as we do on the inscriptions of Śrāvaṇa Belgola, we find that another name for Umāsvāti is Gṛdhrapiñccha (also Gṛdhrapiccha). This removes once for all the doubt that Gṛdhrapiñccha is another name for Kundakunda. We are afraid that a confused tradition has identified Gṛdhrapiccha with Kundakunda. The real fact seems to be that Umāsvāti went by the name of Gṛdhrapiccha. How he got this name is related in a story. It is said that Umāsvāti once felt like paying a visit to Śrīmanthara Tīrthaṅkara who was living in Videha to be instructed on Jaina siddhānta. So he flew through the air when his peacock feather bunch (Mayūrapiccha) fell down. He substituted this by taking the feathers of a vulture or gṛdhra.<sup>8</sup> Umāsvāti is credited with the composition of a learned work called Tattvārthasūtra. It is a treatise of the Jaina doctrines in general presented in the form of sūtras. What is remarkable to note is that while Kundakunda wrote in Prākṛit, Umāsvāti wrote in Sanskrit. In fact he was the first Jain guru to adopt Sanskrit. In his description of omniscience and other dogmas he followed Kundakunda.<sup>9</sup> Both refer to nayas, a naya being a view-point generally occurring in the Ardhamāgadhī canon of the Śvetāmbaras.<sup>10</sup> The concluding verse of this work throws light on the Umāsvāti-Gṛdhrapiccha identification. It runs :

*tattvārthasūtrakartāraṁ gṛdhrapicchopalakṣitam  
vande gaṇendrasaṁjātaṁ umāsvātimunīśvaram.*

As for the date of Umāsvāti, there is no tangible evidence to fix exact chronological limits. Tradition records him both as a contemporary of Kundakunda and a successor. However, to be consistent with the date assigned to Kundakunda by us, Umāsvāti must have lived in the first half of the first century A.D.

Balākapiñccha is said to be a direct disciple of Umāsvāti. Consequently he lived towards the close of the first century A.D.<sup>11</sup> It is a pity we have not much evidence to write a history about the career and works of this Jaina saint.

According to the inscription No. 54 the spread of Jainism received an impetus from the hands of Samantabhadra. The inscription records that he was a teacher and the head of a gaṇa devoted to the goddess Padmāvatī. He carried the Jaina Dharma to all places by holding

8. See Intro. Tattvārthaslokavārttikam, Bombay.

9. B. See Upadhye, op. cit. p. lxxx.

10. *Ibid.* lxxxvi.

11. EC. ii. 64, 66 etc.

disputations then and there. How he displayed his eagerness to commence such disputations is seen from his statement at Karahātaka (Kolhapur):

“At first the drum was beaten by me within the city of Pāṭaliputra, afterwards in the country of Mālava, Sindhu and Thakka, at Kāñcīpura, and at Vaidiśā. I have now arrived at Karahātaka, which is full of soldiers, rich in learning and crowded (with people). Desirous of disputation, O king, I exhibit the sporting of a tiger. When the disputant Samantabhadra stands in the court, O king, even the tongue of Dhūrjaṭi (Śiva), who talks clearly and skilfully, turns back quickly towards the nape of the neck. What hope can there be for others?”  
(EC. Vol. II. Trans. pp. 24-5).

He was the author of the *Āpta Mīmāṃsa*, dealing with the *Syādvāda* doctrine. His other work is *Ratnakaraṇḍaka Śrāvakācāra* (ed. with Introduction by Pandit Jugal Kishore). Samantabhadra's promulgation of the doctrine of *Sarvajñatā* was an important contribution to the Jaina philosophy. It was a subject of academic discussion at the hands of experts for several centuries after the days of Samantabhadra. In course of time the subject assumed much importance and its psychological aspects were stressed. The Upaniṣadic idea of calling the divinity *svayambhū*, which according to the Jains is the enlargement of the individual self, is elaborated by our ācārya in his *Svayambhū-śloka*.<sup>12</sup> It need not be told that he was a member of the Digambara sect and flourished, according to one view, in the early Rāṣṭrakūṭa period. Professor A. B. Keith is inclined to place him in the seventh century A. D. though no evidence is cited.<sup>13</sup> But we may fairly accept the authority of the Jain tradition which assigns him to 138 A. D.<sup>14</sup>

According to the inscription No. 44 at Śrāvaṇa Belgola it is evident that this Digambara travelled from Pāṭaliputra to the Indus, and from the Indus to Kāñcī. It would appear that after this enthusiastic Jain missionary the work of proselytising to the Jain church was carried on in all earnestness.

Śivakoṭi was the next Jaina author of some importance. We know of his famous work *Bhagavatī Ārādhana*. It is unfortunate that we have not enough materials with regard to this saint. The other celebrity was Pūjyapāda, worthy of worship even by sylvan deities. His visit to the Videha country is recorded by tradition and epigraphy.

12. See Upadhye, op. cit. p. xcii n.

13. A History of Sanskrit Literature, p. 497.

14. See Dr. Bhandarkar's Report on the Search of the Sanskrit Mss. in 1883 and 1884, p. 320.

The Rājāvalikathā refers to his miraculous powers<sup>15</sup> especially as a physician. It is generally believed that he lived in the fifth century A.D.<sup>16</sup> The Bhaktis in Sanskrit composition are all attributed to this ācārya. One work of his is the Samādhiśataka with a metaphysical bias.<sup>17</sup>

The most important figure after Samantabhadra is Ākalaṅka. According to the Śrāvaṇa Belgola inscription No. 54 Ākalaṅka, designated also Devākalaṅga Paṇḍita, defeated the Buddhists in public disputation at Kāñcī in the 8th century A.D. He is said to have been a vanquisher of Tārā and Buddha (Sugata), troublesome of false teachers of religion and devoted to his own faith. He informed king Sāhasatunga, probably a Rāṣṭrakūṭa king, of his victory in the religious disputation held in the court of Himaśīlata, the last Bauddha king of Kāñcī which resulted in the banishment of the Buddhists to Ceylon. Wilson in his introduction to the Mackenzie Collection (p. 40) informs us that Himaśīlata was the last Buddha prince at Kāñcī since he was converted to the Jaina faith by the acknowledged ability of Ākalaṅka. He is credited with the authorship of a small work named Ākalaṅkaśataka.

From these accounts one thing is clear, and it is that the period covered by the sixth to the eighth centuries in South India was marked by wordy warfare and learned religious disputations, especially between Buddhists and Jains, as also between Śaivas and Vaiṣṇavas. Each sect was anxious to preserve its tenets and spread them among the masses. Though the Jainas succeeded in putting down the Buddhists, still they were overcome by the followers of the orthodox religion, who were largely the authors of the Tamil *Tevāram* and *Pirambandham*.

15. EC. ii. 64, 254, 258.

16. See IA. Vol. X. pp. 75-9 and Vol. XII. pp. 19-21.

17. Sanātana Jaina Granthamālā series Vol. I. (Bombay 1905).



## ŚIVAJĪ'S SURAT EXPEDITION OF 1664 :

*Some of its historical aspects.*

By J. C. DE

*(continued from I.C. last issue)*

Moreover Smith himself says (according to "L'Escalot") that Śivajī ordered his hand to be cut off in a moment of high nervous tension. An emissary from the Mughal authorities had sought to murder the Rājā just before these orders were issued. As soon as the tension relaxed, Śivajī relented and stopped the executions.

Regarding Father Ambroise, Śivajī is said to have declared<sup>32</sup> "The Frankish Padrys are good men and shall not be molested." One cannot scoff at such a declaration, when one remembers that Śivajī was a pious Hindu of the seventeenth century. The Capuchin Fathers according to Carré who reached Surat, only four years after this expedition, "were exempted on account of the general regard for them as good religieux and in order that he might not have the appearance of scorning popular respect for their persons." The house of a prominent broker or "money-changer" was spared "because (Śivajī was) assured that he had been very charitable while alive." He was "Mondas Parek" who had died in January, 1661. "He was a rich man and very charitable," says Tavernier, "having bestowed much alms during his life on the Christians as well as on the idolaters ; the Rev. Capuchin Fathers of Surat living for a part of the year on the rice, butter, and vegetables which he sent to them." During the time that "this Bannian" was ill "as also during eight or ten days after his death," (altogether about a fortnight) "his brothers distributed 9,000 or 10,000 rupees".<sup>33</sup>

The case of a Jew, a "native of Constantinople," mentioned by Bernier, who was "three times placed on his knees to receive the stroke of a sword flourished over his head", again shows the unwillingness of the Marāthā to shed blood, if threats sufficed for his purpose.

As regards his treatment of women prisoners, Khāfi Khān, by no means an admirer of his, says :— "When the women of any Hindu or Muhammedan were taken prisoners by his men, and they had no

32. According to Bernier.

33. Ball, Vol. II, page 204.

friend to protect them, he watched over them until their relations came with a suitable ransom to buy their liberty. Whenever he found out that a woman was a slave-girl, he looked upon her as being the property of her master, and appropriated her to himself."<sup>34</sup>

"To this quickness of movement," Carré himself says elsewhere, "he added like Julius Caesar, a clemency and bounty that won him the hearts of those his arms had worsted."<sup>35</sup>

The women according to Valentyn were bewailing their losses rather than personal ill-treatment. But it must be admitted that during that age, however moderately kind and chivalrous the chief might be, there must have been some in these regiments of predatory horse who perhaps would not avoid torturing women to extort loot.

Again, the fire which damaged property uselessly, seems to have broken out, at least partly, as the result of the falling cannon-shots from the Mughal fort. "The Cannon," says Carré, "demolished their (of the inhabitants) houses and set them ablaze."

We must also remember that according to a Dutch authority, Śivajī distributed a part of the spoil among the poorer people instead of destroying it wantonly. "He and his followers," says Valentyn, "took only the most costly things with them, and distributed things of less value which would only hamper them, to the poor, whereby many obtained more than what they lost by the fire and plunder." Moreover it is very probable that these accounts are exaggerated ones of what actually took place. Gary's letter<sup>36</sup> of 25th January, for example, asserts that Smith saw "six and twenty" hands "besides many heads" "cutt off in a morning." "There were then," says "L'Escalier," "about 4 heads and 24 hands cutt of."

The Bakhars, generally speaking, extol Śivajī's virtues and see in him almost a divine being. The fulsome adulation which the Marāthī Chronicler pours on Śivajī reminds the student of the praśastis of the earlier Hindu Period. To illustrate their opinion of the rājā, I quote a few lines from the Rājavyavahārakośa below :—

....*Tasya priyā bhūpatibhartur āryā rūpeṇa saṁtarjitakāmabhāryā  
Sādhvī Jijñāṣa sulakṣaṇās(?)te patnī Dilīpasya Sudakṣiṇeva  
Tvam Śāhaprithvīpatiṁrāpatnyām asyām samāsādya*

*manuṣyajanma*

34. Muntakhabu'l-Lubāb in Elliot and Dowson, VII, p. 260.

35. Cal. Rev. Feb, 1928, p. 237.

36. Public Rec. Office, C.O. 77, Vol. IX, folio 38A, no. 24, 2nd. letter ;  
Khan : Bombay etc.

*Mlecchāpahatyā sukhā āracayya bhūmeḥ punaḥ sthāpaya  
varṣadharmān*

*Śivasvanāmānugunāṃ guṇajñāḥ  
Prāyo nivāsaṃ sa vidhātukāmaḥ,  
Śailāvaliṃ durgavidhānadambhāt  
Kailāsakalpām akhilām akāṛṣīt.  
Krameṇa jītvā sa diśaś catasro  
Rājā Śivacchatrapatiḥ pratāpāt  
Nihśeṣayaṃ Mlecchagaṇāṃ samastāṃ  
Pāti sma pṛthvīm paripūrṇakāmaḥ.*

The author of the work is Raghunātha who introduces himself thus :—

*Soyam Śivacchatrapater anujñāṃ  
Mūrdhābhiṣiktasya nidhāya mūrdhni,  
Amātyavayom (?) Raghunāthanāmā  
Karoti Rājavyavahārakośam<sup>37</sup>.*

On the whole it is wise to be moderate in our judgement regarding the cruel methods practised to extort the spoil, and not generalise and speak like Fryer of "those intolerable Cruelties, Devastations, and Deserts made by him every in his Range up and down in the Mogul's territories, as weel as in the Duccanean," or characterise as "a diseased Limb of Duccan impostumated and swoln too big for the Body." But even Fryer admits that he was "in some respects" "benefitting...the Body" "by opposing the Moghul's entry into the Kingdom<sup>38</sup>."

The Cambridge History of India, I may remark incidentally, is mistaken in saying that there was a French factory at Surat during Śivajī's first expedition.<sup>39</sup> Caron, it is well known, founded the Comptoir in 1668.<sup>40</sup> The letter sent overland to the Company of 22nd January 1668, for example, talks of negotiations; the attack on Béber; the presents running into tens of thousands of rupees; and the grant of a commercial charter to the French with the concession to have a house of their own in Surat.

The resistance of the English factory must again be viewed in the proper historical perspective. The factors acted boldly, and defied the invader. "Sir George Oxendine," says Fryer, "defended himself and the Merchants so bravely, that he had a Collat or Serpaw

37. Rājavyavahārakośa in Śivavaritrapradīpa.

38. Hak. Society, II. series No. XX—John Fryer's East India and Persia, Vol. II, p. 57 et seq.

39. C.H.I. Vol. IV. p. 258.

40. C.O. 77, Vol. X. f. 176.



... with an Abatement of Customs ... For which his Masters ... presented him a Medal of gold with this Device :

Non Minor est virtute quam quoerrere  
parta tueri."<sup>41</sup>

"We have taken into our Consideration," says the letter from the Company of 27th March, 1668, your great care and courage, in the Defence and preservation of our Estates, in the time of Sivagees invasion (although you did it in discharge of your trust)." George "Oxinden" was given "200l. in gold, with a Medal of Gold, put up in a Box. .... to ..... Goodier 100l. .. Garie 60l. Aungier 60l, made up severally and directed to each respective person. And we hereby order for your disposure 400 pds. to be distributed among such persons as you know were active in that service, amongst whom in particular wee prefer Mr. John Peait."<sup>42</sup>

A letter of 11th August, 1664, appreciated the efforts of the Company's servants and promised gratuities to them.<sup>43</sup> Various monetary rewards to the officers and men who had taken part in the defence of the factory directly or indirectly were sanctioned by the Court of Committees which met on 23rd. September, 1664.<sup>44</sup> Among them there were Captain "Millett"—recorder of "A Voyage begun in the good shipp the Loyal Merchant, by me, Nicholas Millett, Commander by God's grace bound for Surratt in East India, beginning the seventh of April, Anno Dommini, 1663"<sup>45</sup>—who received 30l., and the commander of the African to whose share fell another 40l. The thirty-three men who were taken down from the Loyal Merchant were awarded 40s. each, while the 19 from the African were to be given 20s. each. Thomas Pain, one of the wounded, was to receive 56.

John Swift was to be taken into their service.<sup>46</sup> George Cranmer among others preferred certain claims in this connecton.<sup>47</sup> The Court of Committees of 15th February, 1665<sup>48</sup> decided to reward

41. A new account of East India and Persia (Hak. Soc. II series no. XIX). p. 223.

42. Hedges' Diary (Hak. Soc. no. LXXV. p. cccii).

43. Eng. Fac. 1665-1667, p. 17.

44. Court Book Vol. XXIV. p. 858.

45. Orme Mss. no. 263. The Importance of Sivaji's first Surat expedition in contemporary European eyes is demonstrated (among other things) by the fact that the author on this occasion leaves his usual habit of making brief notes (mainly) on nautical and mercantile matters, behind.

46. of 23rd Nov. 1664, Vol. XXIV, p. 889.

47. Vol. XXIV, p. 923.

48. Court Book. Vol. XXIV, p. 931.

Cranmer with 20l. for his courage. But a fine of 10l. 17s. was imposed on him for other reasons at the same time. About two years later, it was resolved<sup>49</sup> he was to be paid 100l. 15s. and 8d. in liquidation of all his claims. A letter of 1st January 1666<sup>50</sup> sent to the Company by the overland route tells us of the gratification of the President and Council at the appreciation of their endeavours to keep off the Marāthā from the factory. On 31st July, 1667,<sup>51</sup> the Committee for writing Letters was asked to consider how Sir George Oxenden and other factors could be rewarded adequately. The report on their services was favourable, and on 6th March 1668 it was decided by a Court that rewards be bestowed.<sup>52</sup> On 18th March, James Adams was ordered to be paid 10l. for his aid. He was also allowed 5l. for foodstuffs and a free passage was to be provided for his daughter who was travelling accompanied by a maid and a "blacke" servant. We noticed the letter of 27th March, above. Ralph Lambton's claims were ordered to be scrutinized by the Court of 30th October, 1668.<sup>53</sup>

These rewards and others were well merited. "The English especially, assisted by the crews of their vessels," says Bernier, "performed wonders, and saved not only their own houses but those of their neighbours." "It was thought. . . like Englishman," says L'Escalot, "to make ourselves ready to defend our lives and goods to the uttermost." With "forty men from the ships" "to our assistance," says the President "wee yourfactors (and) servants joyned, and haveing drawne them out in banke, and file, with drum and trumpet, your President in the head, march(d) through the body of the towne to the green before the Castle, where the Governor was ready to pop in upon the first notice of their approach."

"The English President Oxenden about ten o'clock," say the Dutch, "came marching over the green, past the castle, and then by our factory. He. . . showed himself so full of spirit and so confident, because of his 200 Englishmen (in addition to the Moor sailors) that he declared himself ready to attack Śivajī should he approach the English factory."

But it was not the brave spirit animating them which alone saved the English factory. The superb artillery and the excellence of military dispositions were factors which the Marāthā could not ignore. Carré

49. Vol. XXV, p. 289.

50. Fac. Rec. Surat. Vol. 86; O.C. Vol. XXIX.

51. Vol. XXVI, p. 223.

52. Vol. XXVI, p. 236

53. Court Minutes etc,

says that one of the reasons why Śivajī did not press his attack on the English factory was "because he knew they were provided with fine cannons and that there might be veteran soldiers in those houses." "Some brass guns," says a letter to Bantam of 19th. March,<sup>54</sup> for instance, "(were) mounted before our doore and other convenient places." "Wee shut up the doores," says the President, "and barracadoed them and made a passage . . . . and kept a garrison in a belcony that cleared all the street." "L'Escalioth" says that "Oxinden" (the President) sent to the ships for men, "and wee . . . endeavoured to fitt our house so well as wee could." "Provision, Victualls, watter and powder" were obtained, and "tow brass guns we procured that day from a merchant in towne of about 300 (weight) a piece; and with old ship carriages mounted them and made ports in our great gate for them to play out of to scource a shorte passage to our house." Two "of about 600" "with shott convenient" reached the factory from a ship in the river. Lead was melted, bullets made, and "no hand (remained) idle but all imployed to strengthen every place, as tyme would give leave to the best advantage." "40 odd" men arrived on Wednesday, "bring(ing) with them 2 brass guns more." "Our four smaller guns were then carried, up to the tope of the house, and three of them planted to scour 2 great streets; the 4(th) was bent upon a rich churles house . . . because it was equally of hight and being possessed by the enemy, might have beene dangerous to our house."

Captains were appointed and reliefs arranged. Twenty more reinforced the garrison. Then "on one side wee tooke possession of (a) pagod or Banian idol temple which was just under our house . . . on the other a Moorish Meseete where severall people were harboured and had windowes into our outward yard, was thought good to bee cleared and shut up which was accordingly done."

"Boath the Companys house and my owne (which adjoynes unto it)" says Gary,<sup>55</sup> "were well furnished with mariners, well armed, who divers times sallied out uppon his people that came to sett fire to our neighbours houses and killed divers of them, by which meanes, our owne houses were not only preserved from the fiends furie butt likewise all the part of the Towne round about us."

The general superiority of European gunnery to Indian is testified to by a number of seventeenth century documents. "Europe Gunners," according to Fryer for example, "(were to be placed) at

54. F.R. Surat Vol. 86, 64.

55. Letter of 25th January.

every Gate, which are six in number" a little later on, to strengthen its defences against future incursions. "The Moors showed their poltroonery," says the Dutch Register, "in the face of the brigands, and the brigands in turn showed their terror before our men, so that no one ventured to pass through the street, where our guns could take them in the flank."

Again the English factory would have fallen in all probability, if the Marāthās concentrated their forces on it alone. One must remember that the daring Marāthā prince had only (about) four thousand horse behind him. He was encompassed by latent and patent enemies. His main object was to collect money for the maintenance of his army, money which he could not and would not take from his own subjects. "Seva-gy" says Carré, (for example), "then left Surat as easily as he had entered it, having found in one single city all the wealth of the East and securing such war funds as would not fail him for a long time." The English themselves seem to admit this possibility in e.g. the letter of the President, which says, "by their multitude force their way to undermine and blow us up."

The only fight of importance is described thus:— "Wee caused a party of foote to sally forth the house and fight them, in which scuffle wee had three men slightly wounded, our men slew a horse and man, some say two or three, but wee routed them." Another document already referred to, says, "(Śivajī) sent a party of horse and foote with cumbustable stuff to fire the severall Banians houses that were joining to ours, hoping thereby to do as much to us . . . whereupon wee sent a party out to fight them, that in a short time routed them out from thence; in which conflict there fell of theirs to the ground a horse and man and one of their foote, besides what wounded; our people coming of againe with one wounded deeply in the shoulder and another shot in the legg with an arrow." The Dutch Surat Diary says that the English President informed the Dutch that "two or three sorties had been made, in which two of the rogues and a horse had been killed and two more taken prisoners." Aungier, according to "L'Escalioit," headed the attack by forty men against a Marāthā body of "about 25 horsemen." "They discharged at them, and wounded one man, and one horse, and the rest faced about and fled but made a shift to carry of their wounded man, but the horse fell haveing gone a little way." "Two of our men were hurt," (one) "was cutt deep over the shoulder," and the other "shott slightly into the legg with an arrow." This letter to St. George (of 16th February) is not, we may note, certain about the date when the attack was delivered. The Log of the Loyal Merchant says, "The enemy . . . coming to fire aboute the English quarters, the English sallied out and killed

three men and a horse." The Mahārāṣṭrīya leader, we may conclude, gorged with spoil, did not think the game of storming the English house worth the candle. We must also remember that the English did not escape scotfree. They could not avoid a number of inconveniences and some pecuniary loss which resulted from this daring expedition.

The student must also remember in this connection that though the English authorities showed a bold front to the raiders at the time of looting, it seems that at first they had some intention of leaving Surat in face of the Marāthā menace. Both the Dutch Register and Diary are clear on this point. "De Engelse president," says the Register, "meende na Swaly te gaen maer de Moorse gouvernement verhinderde hem sulx zeggende, dat, indian hy en de directeur van de Hollanders Vluchtten, alsdan niet een mensch in de stadt en zoude blvven." It was because of this reason that the English resolved to place themselves in a position of defence. "The Directeur was told," says the Diary, "that the English President had asked the Governor's permission to withdraw to Swally, but the latter had angrily refused, saying that if the English and the Dutch forsook the city at this crisis, no one would remain."

Moreover, Dutch sources and Carré point out that Śivajī at this time desired the alliance rather than the hostility of "the Europeans trading in India, as a matter of policy." Carré speaks enthusiastically about the kind reception that the Marāthā authorities extended to him when he passed their waters "in 1668 with two ships of the Company." "Wee were treated in a manner which was," he says, "beyond our expectation." Śivajī's "reflection," according to him, "was that by occupying the coast and treating well the Europeans who come to India he might make them love him and serve him." According to "L'Escalier" Śivajī expressly declared on the occasion of this raid "that hee was not come to doe any personall hurte to the English or other merchants, but only to revenge himself of Orom Zeb (the Great Mogul)." He would only have the English and Dutch give him some treasure and "hee would not meddle with their houses ; also hee would do them all mischeefe possible." In a letter from Swally Marine of 20th November, 1670 Aungier and other<sup>56</sup> says that when an embassy was sent (with presents) to Śivajī during his second expedition to Surat, "he (Śivajī) sent for them and received them with the Piscash, in a very kind manner, telling them that the English and he were good friends, and putting his hand into their hands he told them that he

would do the English no wrong, and that his giving his hand was better than any Cowle to oblige him thereunto." Śivajī's kind attitude may easily have been the calculated move of a statesman. What he probably required from the English (and the other Europeans) was nominal submission and a good few presents in token of that. The French also on this occasion though "strong in menn" "made a private peace for themselves" with the aid of "valuable presents." The Dutch had purchased immunity by promising that "we would not interfere for or against him." This mentality of the Marāthā rājā may well have deadened the force of his onslaught on the English factory to a certain extent, though it must be admitted that when spoil lay in his path, Śivajī at this stage of his career, was certainly not the man to let it go unclaimed.

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## BIRTH OF THE GODS\*

(*A religio-philological study*).

By BATAKRISHNA GHOSH

It has been claimed for the Vedic religion—not without some justification—that it shows the very process of the birth of the gods. The school of comparative mythologists, now fallen into disrepute, could find no rest until they had identified every Vedic deity with a particular natural phenomenon. But they did not pay heed to the obvious fact that the individual natural phenomena, alone and unaided, cannot account for the Vedic pantheon. Whatever the ultimate cause of the birth of a god—an earthly totem, a natural phenomenon, or a celestial body—, in his final form the god is the outcome of an active human mind which might have received external impressions passively, but which could not but shape in its own mould its final product, for there must have intervened a period of *conception*. It is clear therefore that a purely phenomenological interpretation of the Vedic deities can at the best be only partially true. The student of the Vedic religion has to look further back and try to probe how the Vedic mind reacted upon the impressions received from without—out of which arose ultimately the gods of the Vedic pantheon. It cannot be seriously urged that the Vedic mind was a *tabula rasa* which retained unmodified what it received from outside. That the Vedic mind too was an active agent is clearly proved by the existence of gods of purely noumenal origin, and that from Indo-Iranian times. None of these gods of noumenal origin, however, attained the power and position enjoyed by the more elevated order of phenomenal deities.

The failure of a purely phenomenological interpretation of the Vedic pantheon is further due to a perverted effort to discover clear-cut personalities where there is none. It may be said, though not without some exaggeration, that *every Vedic god is a congeries of characteristics, but none has a character of his own*. It is this singular feature of the Vedic religion which induced Max Müller to coin for it the suggestive but hardly accurate term “kathenotheism.” Like Pirandello’s characters in search of a plot, these characteristics float in the mist of poetic imagination in search of a character, and ultimately give rise to complex gods through combinations not altogether fortuitous. These characteristics of the Vedic gods can be—and should be—explained phenomenologically, but not their character.

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\*This article was completed on 23. 11. 37.



It is for the ethnologist to prove or disprove whether this state of religion is at all possible in a primitive society. But the facts of our case hardly admit of any other theory. We encounter the gods in the Vedic texts in a more or less advanced stage of anthropomorphism—which is possible only through combination of various characteristics : a single natural phenomenon can hardly account for a celestial personality however hazy and undefined. On the other hand, it is equally difficult to imagine that the same natural phenomenon could have evoked in the human mind a variety of conflicting emotions and sentiments. Even on an exclusively phenomenological hypothesis, therefore, it is necessary to assume that various emotions evoked by different phenomena had combined to constitute the image of a god in the minds of the Vedic R̥sis. It is the primary duty of the historian of Vedic religion to show how this combination of different characteristics had taken place.

An indirect proof of the mobility of specific characteristics to combine into different characters is perhaps furnished by the singular fact that, within the limits of the Indo-Iranian religion at least, the same god has been called by different names,—or rather, to put it more correctly, the same constituent characteristics have been combined under different heads, for this is, as I propose to show below, the true significance of the names of the gods. Thus, through the Zoroastrian reform, Indra, the Aryan god of virility and war, was banished from the Iranian pantheon, but Indra-ism was not abolished thereby : the constituent characteristics of Indra were simply transferred to Mithra as Güntert has amply demonstrated (*Der arische Weltkönig*, pp. 57 ff.). In the same way, the great god Varuṇa of the Vedic pantheon appears as Ahura in Avestan mythology (Benveniste, *Vṛtra et Vṛthragana*, p. 46), and it is not without significance that Ahura Mazdāh is never called simply Ahura in the Avesta (*ibid.*, p. 44).

But it is hardly necessary to compare the Vedic gods with those of the Avesta to show that their characteristics were in a large measure free to attach themselves to various deities. The internal evidence of the Vedas is eloquent enough on this point. If the ancient Indian gods are compared with those of Egypt, Assyria or Greece, it will be clear to every careful observer that the personality of Vedic gods is hazy and indistinct. With few exceptions, all the usual adjectives and epithets could be applied to almost every individual deity. The Vedic pantheon offers indeed an insipid contrast to the brilliant society of the Olympian gods. This might have been partially due to the increasing importance of ritual in the Vedic religion, for if anything can be said about Vedic religion with absolute certainty it is that the

gods in it gradually sank to the status of mere pretexts for sacrifices. Yet, the Indo-Iranians were not the only people whose religion was sacrifice-ridden. Sacrifice played a very important part also in Greek and Roman religions, and yet the Graeco-Roman gods retained their sharp individuality inspite of progressive humanisation and increasingly mundane proclivities affecting all of them equally.

The supreme question now confronting us is, how were the various—even conflicting—characteristics which went into the making of individual gods combined? It is obvious that in those combinations in which one particular characteristic overshadowed all the others the resulting deity was named after that characteristic, and a sort of unstable synthesis was achieved under the sign of that name. But where the various characteristics concerned were equally prominent and essential no such easy solution was possible: in some at least of such cases the Indo-Iranians had to borrow the name from other peoples. It is true that of all things the most difficult to borrow is religion, for it signifies not merely an article of faith but an entire mode of thought. Yet, when religion was still atomistic as in the Indo-Iranian age, borrowing could be done with the utmost ease, for whatever new element of faith was to be imported from outside was already present there in its component factors: borrowing at that stage signified nothing but a novel constellation of existing ingredients. But the novel constellation could be effected only within the cadre of a particular mental attitude, to discover which the only instrument at our disposal is the *names* of the gods, under the sign of which the various characteristics were assembled to give rise to the resplendent deities of the Vedic pantheon, who, on a superficial view, may seem to have sprung into existence, perfect in every limb, like Minerva out of the head of Jupiter. An analysis of the names of the Vedic gods can therefore actually throw light on the origin and development of the Vedic religion.

This position is not at all invalidated by the fact adverted to above that the gods have often changed their names as in the case of Vedic Indra and Avestan Mithra. The name suggests nothing more than a mode of integrating the constituent characteristics which go to form the personality of a deity, but in no way does it determine those characteristics themselves. This is however not to suggest that the names of gods exercise no influence on their earthly or celestial career, for Usener has conclusively proved that the mere name too can be instrumental in the rise or fall of a deity.

In the light of these observations I shall now proceed to examine the names of some Vedic gods. But it is necessary to briefly discuss at the outset the origin of the Vedic people. I must confess that I

cannot agree with Pran Nath, Lakshman Sarup<sup>1</sup> etc. that the Vedic people were responsible for the civilisation of Mahenjo-Daro, and I am equally unable to subscribe to the view that "the anterior limit of the Veda has to be pushed back to about 11,000 B.C." and that "the finds at Mahenjo-Daro belong to the later Vedic period and that practically the whole of the R̥gvedic hymns is anterior to the finds in date."<sup>2</sup> The voice of reasoned scholarship is to be heard in this respect rather in the daring but thought-provoking article contributed by Mr. Harit Krishna Deb to the Geiger-Festschrift.<sup>3</sup> Mr. Deb argued that the names of some Vedic tribes are strikingly similar to those well known in the ancient history of the Mesopotamian world. Some of Deb's equations are indeed nothing but "sound" etymologies, and it is doubtless for this reason that his paper has not even been mentioned in Nehring's comprehensive work "Studien zur indogermanischen Kultur und Urheimat" (Vienna 1936). Yet the point raised by Mr. Deb cannot be brushed aside so easily. That words of Assyro-Babylonian origin are actually found in the Indo-European languages (e.g., Skt. *paraśu* : Gk. *pelekús*) has never been denied, but scholars have always hesitated to admit definite Assyro-Babylonian influence on Vedic or Indo-European civilisation. It is true that the mere borrowing of isolated words cannot prove definite cultural influence of one people upon another ; but it has been also proved that the Assyro-Babylonian influence, at least on the eastern Indo-Europeans, extended even to definite cultural institutions. It will suffice for our purpose to mention in this connection Jules Bloch's article on "La Charrue Védique" (Bulletin of the School of Oriental Studies, Vol. VIII) in which he has shown that the plough of the Vedic Aryans must have been borrowed from the Assyrians or their predecessors. It is fully established to-day that agriculture—at least tilling with the plough—was unknown to the primitive Indo-Europeans. Yet, among the earliest Vedic Indians we find an ingeniously constructed instrument which could plough and sow at one at the same time,—the word *sīrá* "plough" is etymologically connected with Engl. *sow*. This ingenious method of tilling the soil had however been discovered in very early times by the Mesopotamian peoples. Hence the conclusion is quite natural that the forefathers of the Vedic Aryans, after detaching themselves from the main body of the Indo-Europeans, had come in contact with the Assyrians who had settlements as far north as northern Asia Minor already about 2800 B.C.

1. Indian Culture, October, 1937.

2. Cultural Heritage of India, vol. III, p. 57.

3. Studia Indo-Iranica, Munich 1931.

In the light of these facts of history the problem of Asura in Veda and Avesta assumes quite a new perspective. Vedic scholars have been singularly diffident about this word of the first importance for Vedic religion and culture, and the setback is perhaps due to the unfortunate effort—of A. Banerji-Shastri for instance—to interpret everything in ancient Indian culture as Asuric. It is anything but encouraging to see such an eminent linguist and philologist as Hermann Güntert trying to derive *ásura* from *ásu* (Der arische Weltkönig, p. 102) and Prof. A.B. Keith in his "Religion and Philosophy of the Veda" wholly ignoring the problem. Yet, no less a scholar than Paul Kretschmer has asserted that Asura-Ahura cannot be separated from the Aššur of Assyria (WZKM., XXXIII, pp. 1–26).<sup>1</sup> It is an established fact to-day that the pre-Vedic civilisation of Mahenjo-Daro was closely connected with the ancient Mesopotamian culture, and recent discoveries seem to suggest that the whole region from Mesopotamia to the Indus-valley was covered with settlements of Indo-Sumerian peoples. The invading Indo-Aryans had therefore to encounter peoples of Mesopotamian culture all along the line. That in material culture the Indo-Iranians were indebted to the Mesopotamians is also an indisputable fact. Why should we then shy and boggle when it is suggested that they had also adopted some elements of Mesopotamian cult and religion? To derive *ásura* from *ásu* is as ridiculous as to etymologise *vidhávā* with the help of an invented *dhava*. If the chief gods of the Vedic Aryans are called Asura we have only to assume that the chief god of Assyria so powerfully impressed the Aryan barbarians on their march to India that "Asura" became synonymous with "great (god)" just as Roman "Caesar" came to signify "emperor" (Kaiser) in Germany.

Before proceeding further we shall have however to discuss, why the word *ásura*, which was originally an epithet of adoration applied exclusively to the great gods, gradually became a term of opprobrium and abhorrence even within the early Vedic age. Nothing like Zarathustra's reform had taken place in India which might explain the progressive pejoration of the meaning of the word. Any attempt to explain this singular phenomenon will therefore have to be based exclusively on the internal evidence of the Vedas, which shows a clear curve of gradual decline. But the evidence of the Vedas is meagre. Yet, we know that one of the chief characteristics of a Vedic Asura was *māyá*. Even when this *māyá* is attributed to other gods it is said to be the peculiar property of the Asura. Thus Mitra and Varuṇa

1. It should be noted in this connection that Old Persian *athura* "Assyria" is an *Elamite* loan-word.

are said to give rains through Asura's *māyā* : *dyām varṣayatho āsurasya māyāyā* (RV. V. 63. 3). And the word is used mostly in connection with those gods who are actually called Asura. But this *māyā* could not have been a good thing altogether, for the Dasyu too is called *māyāvān* (RV. IV. 16. 9). In *māyā* we have thus a mysterious element connecting the highest god Varuṇa with the vile Dasyu. It does not concern us here to discuss what was the exact meaning of the word *māyā*. But it may be suggested, tentatively though, that this *māyā*-element came to be more and more closely associated with the Asura and finally brought about his downfall.

"Asura" is perhaps the most eloquent case in which the zealous etymologists have intervened only to blunder. But there are also other cases in which the etymologists should have been able to put up a better show of their science. Let us first take up the case of Mitra. He is mentioned in Boghaz-Köi along with Varuṇa (*u-ru-va-na*), Indra (*in-da-ra*) and the Nāsatyas (*na-ša-ad-ti-an-na*), and in the Vedic literature too he is closely associated with Varuṇa. The etymology of "*varuṇa*" is quite certain, for there can be no doubt that it is the same word as Greek *Ouranós* (< \**oworanos*), and it is also clear that the word has to be derived from the root *wr-* "to encompass," the suffix-element being *-una*, which is but the thematised weak-grade form of the suffix *-van* so clearly in evidence in its Hittite and Greek parallels. Varuṇa is therefore the god of the encompassing (and hence, protecting) sky, as opposed to Dyaus, also called Asura, who personifies the translucent atmosphere resplendent in the sun.

If Mitra is closely associated with this Varuṇa, it suggests of itself that he must be the god of some celestial phenomenon. The etymology of the word will help us to achieve greater precision as to the origin of this god, who in the early centuries of the Christian era conquered even the eastern provinces of the distant Roman empire. Petersson and Güntert (see *Der arische Weltkönig*, p. 51) have indulged in considerable linguistic acrobatics to provide this word with an etymology which was taken seriously perhaps only by its authors. Starting with the assumption that Mitra was the god of peace and truce—Mitra is mentioned in Boghaz-Köi in connection with a peace-treaty—, they have tried to derive the word from a root *mei-* which is supposed to lie hidden in Skt. *mēkhalā*. But there is no need to apply so much ingenuity to this word whose etymology is quite transparent. An instrumental suffix *-tro-* is but too well-known in the Indo-European languages, and a root *mē-* "to measure" (Skt. *mā-*) is equally well attested. There is every reason to believe that the word *mitrá* is derived from this root *mā-* with the instrumental-suffix *-tra*. Phonologically there is absolutely no difficulty at all. The

root *pā-*, for instance, combining with the suffixes *-tar* and *-tra* respectively, has given rise to the forms *pitā* (beside *pātā*) and *pātra* "instrument to protect with, armour"; in the same way the words *mātā* and *mitrā* are to be derived from the root *mā-* "to measure." "Mitra" literally means "an instrument to measure with." And we have seen above that he is closely associated with the sky-god Varuṇa. Is it not obvious hence that the word *mitrā* originally must have signified either the sun or the moon—the heavenly measurers of passing time? It is now time to remember that Mitra is also invoked as the maker of the day as opposed to Varuṇa who is usually associated with the night (see Keith, *Religion and Philosophy*, p. 97). We are thus forced to the conclusion that Mitra was originally the sun-god and not an abstract deity of peace and harmony as has been often asserted. It is therefore no accident that Skt. *mihira*, ultimately derived from Avestan *mithra*, signifies "sun". It proves also in a striking manner that however encumbered Mithra might have been with the opprobrious characteristics of the thunder-god Indra—which however helped him to conquer the whole of the then civilised world—, it was his innermost self, the radiant Helios, which at last triumphed over all other accretions and attributes.

Lastly I shall consider the great thunder-god Indra,—bold, bluff and fearless, generous in great things but rapacious in details. The Germanic god Thor is truly his replica,—perhaps his own self under another name. Zarathustra deposed him from his high pedestal for his intemperance and immorality, but he continued to be the darling of the people who dodged the reformer and worshipped their hero as Vṛtragana. Like all essentially non-spiritual beings, Indra thrives mainly by resistance, and Vṛtra is nothing but this resistance personified. The word *vṛtrā* cannot be separated from *vātrā* "dike," and its original neuter gender is still in evidence in the RV., cf. *vṛtrāni*. "*Vṛtrā*" therefore originally signified some force which, like a dike, held the waters confined. But this force came to be conceived in a theriomorphic form—as a dragon—, for in the RV. the words *ahi-hán* and *vṛtra-hán*, both epithets of Indra, are practically synonymous. Indra as the slayer of dragon cannot fail to remind us of the far-flung group of similar myths,—of Hercules and Hydra, Apollo and Python, Zeus and Typhon. Even the Hittites had known the legend of a dragon-slaying hero (Benveniste, *Vṛtra et Vṛtragana*, p. 186). But that is not all. The Hittites also possessed a word *innara* signifying "force, vigour"; cf. *innarawa* "strong, heroic," *innarawater* "heroism," etc. They also worshipped a divinity called "Indra," but Sommer has shown that it is the name of a goddess (see however Friedrich, *Hirt-Festschrift*, vol. II, p. 223, foot-note 1). If we now remember that

the god Indra is mentioned for the first time by the Mitanni, who were neighbours of the Hittites, it would seem not only plausible but quite probable that the name of our god Indra is ultimately derived from this word *innara* borrowed from the Hittites, as Kretschmer and Benveniste (*ibid.*) have suggested. It is true that it is yet to be proved that the Hittites themselves used the word *innara* as the name of a god. But even admitting that the word *innara* (out of which would automatically result *indra* through the interposition of the glide-sound *d*) was exclusively an abstract noun originally, there is no reason why we should be diffident about connecting Indra with Hit. *innara*. If what I have tried to prove at the beginning of this article is even partially true, nothing could be easier than to metamorphose an abstract quality into a concrete deity in the state of mind revealed by the ancient Indo-Aryans in their earliest records. The legend of the dragon-slaying hero must have been known to the earliest Indo-Europeans as is proved by its ramification in the cultures of all the chief Indo-European tribes. This legend itself might have been borrowed from some other people, but that has yet to be proved. What is certain however is that the early Indo-Europeans lacked the *name* of a hero, under the sign of which they could conveniently integrate and consolidate the loose features of this floating legend. Their eastern tribes, on their march to India, came in contact with the Hittites who possessed a word expressive of vigour and heroism. This they borrowed, for similar words in their own language could not be utilised for the purpose of consolidating the legend, for, at least in their own eyes, these words must have been encumbered with various semasiological associations which might not have been consistent with the chief idea underlying the legend. In all such cases a loan-word has a great advantage over indigenous ones : every possible semasiological nuance can be forced on a loan-word which the indigenous synonyms will usually refuse to accommodate. The name of the great god Indra should therefore be regarded as a loan-word from Hittite as Kretschmer and Benveniste have suggested ; thus Hit. *innara* > \**inra* > *indra*. And it is no small gain that we are thus relieved of the unseemly etymology, usually accepted hitherto, which would connect *indra* with O. Ch. Sl. *jadro* "testiculus."

In Mitra and Indra we therefore actually get instances of the two possible kinds of names adverted to above. In Mitra a single predominant characteristic overshadowed all the others to such a degree that the deity in question had to be named after that characteristic. In Indra however the various characteristics were so evenly balanced that nothing but an innocuous loan-word could induce them even into an unstable synthesis.

SOUTH INDIAN AUTHORSHIP OF SOME VERSES  
ATTRIBUTED TO RAGHUNĀTHA-ŚĪROMAṆI AND  
OTHERS†

By E. V. VIRA RAGHAVACHARYA

The *Tattva-Cintāmaṇi*, otherwise known as *Pramāṇa-Cintāmaṇi*, was the work of a well-known Brāhmaṇa logician of Mithilā, called Gaṅgeśopādhyāya. It is an epoch-making work in Indian Logic and is justly reckoned as the first as well as the best work on the Modern School of Hindu Logic. In modern India, Sanskrit scholarship is not considered worth the name unless it is accompanied by a knowledge of the *Tattva-Cintāmaṇi* or portions thereof.

The popularity of this blessed work is attested in unmistakable terms by the numerous commentaries, sub-commentaries and glosses that have grown around the book since its first appearance. The text of the work covers about 300 pages, while its expository treatises extend to over 1,000,000 pages.<sup>1</sup>

A critical commentary on such a famous work was written by Mahāmahopādhyāya Raghunātha Śīromaṇi, one of the brightest luminaries among the galaxy of Indian philosophers. He was born in the district of Nadia (Navadvīpa) in Bengal about the year 1477 A.D. Raghunātha's commentary, the *Tattva-cintāmaṇi-dīdhiti* is minutely studied by advanced students throughout India.

Under the caption '*Some Literary Anecdotes*' IX, Mrs. Mālātī Sen, M.A., published<sup>2</sup> some verses attributed to the learned savant, Raghunātha Śīromaṇi, along with some anecdotes concerning him, without, however, citing any authority for the verses so quoted. Some of the verses ascribed to him proved on an examination to be the compositions of some South Indian writers. An account of such verses along with some notes as to their authorship is subjoined for the information of North Indian Sanskritists.

†Originally intended for Dr. D. R. Bhandarkar Volume.

1. For this information I am indebted to *A History of Indian Logic* (Ancient, Mediæval and Modern Schools)—by the late Mahāmahopādhyāya Dr. Satīś Chandra Vidyābhūṣaṇa, M.A., Ph.D. (Published by the Calcutta University, 1921.)

2. *Calcutta Oriental Journal*, Vol. II. No. 1. pp. 22-30. (Oct. 1934).



1. 'पठन्तु कतिचिद्वठात् खफछठेति वर्णच्छठा  
घटः पट इतीतरे पटु रटन्तु वाक्पाटवात्  
वयं वकुलमञ्जरीगलदमन्दमाध्वीझरी-  
धुरीणपदरीतिभिर्भूणितिभिः प्रमोदामहे.'

— *Subhāṣita-ratna-bhāṇḍāgāra*, II. 49 *sl.* (p. 34) (anonymous.)

But here the verse begins with 'वदन्तु'. Attributed, by Mrs. Mālatī Sen, to Raghunātha-Śiromaṇi (*C.O.J.* Vol. II. No. 1. p. 26). Attributed to Vedānta-Deśika, in the *Cāṭudhārā-camatkāra-sāra*<sup>3</sup> (p. 29). Begins with 'पठन्तु'; other variants: 'वाचां भटाः' for 'वर्णच्छठाः'; traditional reading as known to the present writer 'पातञ्जलाः' which is in consonance with 'नैयायिकाः' in l. 2. 'नैयायिकाः' for 'वाक्पाटवात्'; 'गलदपार' for 'गलदमन्द' in l. 3. 'परीत' for 'धुरीण', 'फणितिभिः' for 'भूणितिभिः' in l. 4.

The above stanza attributed to Raghunātha is ascribed to Vedāntadeśika in the *Cāṭudhārā-camatkāra-sāra* of Subrahmaṇya Kavi. From this, as well as by tradition, it is known that this verse was a composition by Śrī Vedānta Deśika (1268-1369 A.D.), the famous South-Indian scholar-poet. The last two lines of the stanza imply, by tradition, a reference to the Vaiṣṇavite Saint Nammālvār, also known as Śaṭhakopa, of revered memory and his supremely devotional Tamil poem, the *Tiruvāyi-mōji*.

By 'वकुलमञ्जरी' is meant this saint who is known also as वकुल-भूषण. Deśika means to say :

(While) we take supreme delight in studying poetry which is as delectable as the incessant flow of nectar from the bunch of वकुल flowers, i.e. the poem of the saint Vakula-bhūṣaṇa.'

2. 'काव्येऽपि कोमलधियो वयमेव नान्ये  
तर्केऽपि कर्कशधियो वयमेव नान्ये  
तन्त्रेऽपि यन्त्रितधियो वयमेव नान्ये  
कृष्णेऽपि संयतधियो वयमेव नान्ये'.

3. A Sanskrit Anthology of the 19th century, compiled and commented on by Allamrāju Subrahmaṇya-Kavi (1830-1892 A.D.), a famous Telugu poet connected with the Piṭhāpuram Saṁsthānam, and a native of Chebrole in the East Godavari District. Printed at the Sujana-rañjanī Press, Rājahmundry—(in Telugu characters)—1931.

— Attributed by Mrs. Mālatī Sen to Raghunātha-Śiromaṇi (C.O.J. Oct. 1934; p. 24). Attributed in the *Guruparaṁparā-prabhāva*<sup>1</sup> to Vedānta-Deśika :

‘तर्केषु कर्कशधियो वयमेव नान्ये  
काव्येषु कोमलधियो वयमेव नान्ये  
तन्त्रेषु निश्चितधियो वयमेव नान्ये  
कृष्णे निवेशितधियो वयमेव नान्ये.’

This verse again which is ascribed by Mrs. Sen to Raghunātha was, in fact, a stanza by Vedānta-Deśika, by tradition as well as by literary authority. In the *Guru-paramparā-prabhāva* (in Tamil) composed by the saint Brahmatantra-svatantra-svāmin the Third, of Mysore, this verse was specifically ascribed to Deśika.

3. ‘मातङ्गीमिव माधुरीं ध्वनिविदो नैव स्पृशन्त्युत्तमाम्  
व्युत्पत्तिं कुलकन्यकामिव रसोन्मत्ता न पश्यन्त्यमी  
कस्तूरीघनसारसौरभसुहृद् व्युत्पत्तिमाधुर्ययो-  
योगः कर्णरसायनं सुकृतिनः कस्यापि संजायते’.

— *Subhāṣita-ratna-bhāṇḍāgāra*,<sup>2</sup> p. 35, śl. 66. (anon.). Attributed by Mrs. Mālatī Sen to Raghunātha-Śiromaṇi. But in the *Bhoja-carita*<sup>3</sup> (p. 58, śl. 261) this verse is ascribed to Bāṇa. Though we cannot rely much on the *Bhoja-carita* for its historical veracity, we might at least say this much that the above stanza was believed to have been Bāṇa's, as long back as the 16th century, the probable date of the *Bhoja-Carita*.

4. ‘येषां कोमलकाव्यकौशलकलालीलावती भारती  
तेषां कर्कशतर्कवक्रवचनोद्गारेऽपि किं हीयते  
यैः कान्ताकुचमण्डले कररुहाः सानन्दमारोपिता-  
स्तैः किं मत्तकरीन्द्रकुम्भशिखरे क्रोधान्न देयाः शराः’.

4. Printed in Telugu script. Śrīnivāsa Press, Mysore, 1911. Unfortunately the particular page could not be referred to here as the printed edition is not at hand for reference and I depend upon my faithful MS copy (written in 1923) of the work.

5. See fourth edition, revised and enlarged, Nirṇayasagar Press, Bombay, 1905.

6. Nirṇayasāgar Press, Bombay, 1928.

— Jayadeva's *Prasanna-Rāghava*,<sup>7</sup> I. 18. The verse was attributed to Raghunātha in Mrs. Mālatī Sen's paper already referred to. In Jayadeva's play the above stanza was a reply to Naṭa's question :

नटः—‘तदहमिह चन्द्रिकाचण्डातपयोरिव कवितार्किकत्वयोरेकाधिकरणवृत्ति-  
तामालोष्य कौतुकितोऽस्मि’ ।

सूत्रधारः—‘किमिह कौतुकम् ? येषां कोमल’ etc.

5. तर्कं कर्कशवक्त्रवाक्यगहने या निष्ठुरा भारती

सा काव्ये मृदुलोकिसारसुरभौ स्यादेव मे कोमला

या प्रायः प्रियविप्रयुक्तयुवतीहृत्कतने कर्तरी

प्रेयोलालितयौवते न मृदुला सा किं प्रसूनावली’.

— Ascribed by Mrs. Sen to Raghunātha (*C.O.J.* II. i. p. 27); *Subhāṣita-ratna-bhāṇḍāgāra*, p. 35, śl. 61. (anon.); but found in Kāśī-  
pati's *Mukundānanda-bhāṇa*<sup>8</sup> (p. 4), as a reply to :

‘तर्कं कर्कशवक्त्रोक्तिनिष्ठुरा तस्य भारती

जाता मधुरसन्दर्भे काव्येस्मिन् मृदुला कथम् ?’

From the dialogue between the Naṭī and the Sūtradhāra in the Bhāṇa it is known that Kāśīpati was the son of Umāpati-sudhī and a native of Nandiyāla-Agrahāra, in the Ānanda country.

Verses 2, 4 and 5 above have a striking parallel in the following stanzas :—

i. ‘तर्कं कर्कशता’ गतापि नितरां वाग्वैखरी सत्कवेः

माधुर्यं प्रकटीकरोति कविताकालेषु किं वाद्भुतम्

पश्यात्यन्तकठोरतामपगता ग्रीष्मे मयूखावलिः

किं नाविष्कुस्ते नवामृतभरं भासां निधेः प्रावृषि’.

— Dharmasūri's *Narakāsuravijaya-Vyāyoga*, śl. 13, p. 8 (Printed in Telugu characters, Madras 1885.)

7. Edited with an Introduction and Notes, critical & explanatory, by Śrī S. M. Paranjpe and Prof. N. S. Panse (Shiralkar & Co., Poona, 1894).

8. Vidyātaraṅgiṇī Press, Mysore, 1911 (in Telugu characters).

The authorship of stanzas 2, 4 and 5, was already hinted at towards the close of our paper on ‘Dharmasūri—His Date and Works’—contributed to *Sir Denison Ross Commemoration Volume*, Karnāṭak Publishing House, Bombay, 1939. (=Ross Number 5, of the *New Indian Antiquary*, Vol. II. No. 7. October 1939.)

- ii. 'साहित्ये सुकुमारवस्तुनि दृढन्यासग्रहग्रन्थिले  
 'तर्क' वा मयि संविधातरि समं लीलायते भारती  
 शय्या वास्तु मृदूत्तरच्छदपटा दर्भाङ्कु रैरास्तृता  
 भूमिर्वा हृदयंगमो यदि पतिस्तुल्या रतियोषिताम्.

— Attributed to Somakavi (=Somadeva) in Jalhana's *Sūkti-muktāvalī*, p. 48, śl. 104 (G.O.S. ed. 1938.). Also in the *Subhāṣita-ratna-bhāṇḍāgāra*, II, p. 35, śl. 59 (anon.)

- iii. 'तर्केषु कर्कशतराः स्यु रथापि पुंसां  
 काले भवन्ति मृदवः कवितासु वाचः  
 दैत्येन्द्रशैलकुलिशं दयिताकपोले  
 नाथस्य कोमलमुदाहरणं नखं नः'.

— Vātsya Varadācārya's *Vasanta-tilaka-bhāṇa*, śl. 5, p. 4 (Printed in Telugu characters, Ādi-sarasvatī-Nilaya Press, Madras, 1915.). Cited in the *Subhāṣita-ratna-bhāṇḍāgāra*, II, p. 34, śl. 37 (anon.). The above stanza was introduced as an answer to :

'तस्य तर्केषु कर्कशहृदयस्य कथमेतादृशमुक्तिमाधुर्य'.

- iv. नटः—तस्य तर्कशूरस्य निक्कामकर्कशा वाणी सायन्तनसमयसमुलसित-  
 मालतीमकरन्दपरिमलमुचि सहृदयहृदयानन्दकन्दसिरावेधनि सारस्वत-प ( च ) रमसीक्षि  
 नाटकमहिम्नि कथमिव पदमाघातुमर्हति ?'

सूत्र—( विहस्य ) 'मारिष ! मैवमाशङ्कनीयम्.  
 शास्त्रेषु शस्त्रपरुषा अपि नाट्यमार्गे  
 कर्णामृतानि च भवन्ति कवीन्द्रवाचः  
 दैत्येन्द्रशैलकुलिशं दयितानितम्बे  
 नाथस्य कोमलमुदाहरणं नखं नः'.

— Vātsya Varadācārya's *Yatirāja-vijaya*, pp. 2-3 (Printed in Telugu characters, Śrīniketana Press, Madras, 1893-94.)

v. For a further parallelism, the inquisitive scholar's attention is invited to Veṅkaṭādhvarin's *Viśva-guṇādarśa*, śl. 299 (p. 169) and the few lines before, to which the verse is a reply (5th ed. Nirṇayasāgar Press, Bombay, 1923.). The verse begins with : 'वेदान्तार्यगिरः'.

6. हे गोपालक, हे कृपाजलनिधे, हे सिन्धुकन्यापते,  
 हे कंसान्तक, हे गजेन्द्रकरुणापारीण, हे माधव,

हे रामानुज, हे जगन्नाथगुरो, हे पुण्डरीकाक्ष, मां

हे गोपीजननाथ, पालय परं जानामि न त्वां विना'.

— Rūpagosvāmin's *Padyāvalī*,<sup>9</sup> 36 śl. 15 p. ( 'श्रीवैष्णवस्य' ). Found in Kulaśekhara's *Mukundamālā*,<sup>10</sup> 21 śl. Kulaśekhara was a royal Sanskrit poet and the Vaiṣṇavite devotee of blessed memory who hailed from South India. Also found in Līlāśūka's *Kṛṣṇakarmāṃṛta*, II. 108 śl. p. 124. (Vāvilla & Son's Telugu edition, Madras, 1918.)

7. 'अर्च्ये' विष्णौ शिलाधीर्गुरुषु नरमतिवैष्णवे जातिबुद्धि-

।वष्णोर्वा वैष्णवानां कलिमलमथने पादतीर्थेऽम्बुबुद्धिः

श्रीविष्णोर्नाम्नि मन्त्रे सकलकलुषहे शब्दसामान्यबुद्धि-

विष्णौ सर्वेश्वरेशे तदितरसमधीर्यस्य वा नारकी सः'.

— Rūpagosvāmin's *Padyāvalī*, 114 śl. p. 46 ( 'दाक्षिणात्यस्य' ) । This verse is assigned, by tradition, to Bhagavān Rāmānuja, the South Indian saint, savant and Vaiṣṇavite reformer, being included in his message to the world.<sup>11</sup>

Variants : c. सिद्धे तन्नाम for श्रीविष्णोर्नाम्नि ; d. श्रीशे for विष्णौ ; a. अर्चा for अर्च्ये'.

8. 'अतन्द्रितचमूपतिप्रहितहस्तमस्वीकृत-

प्रणीतमणिपादुकं किमिति विस्मयान्तःपुरम्

अवाहनपरिष्क्रियं पतगराजमारोहतः

करिप्रवरबुद्धिते भगवतस्त्वरायै नमः'.

— Rūpagosvāmin's *Padyāvalī*, śl. 50, p. 21 ( 'दाक्षिणात्यस्य' ) ; Gadādhara's *Rasika-Jivana*, IX. 27 śl. 217 p. (anon.), but begins with 'अनादृत' ।

This is the 57th stanza of the *Uttara-śataka* of *Śrī-Raṅgarāja-stava*<sup>12</sup> of Parāśara Bhaṭṭa (born : 1061 A.D.), a South Indian Vaiṣṇa-

9. Critically edited by Dr. S. K. De : *Dacca University Oriental Publications Series*, No. 3. Dacca, 1934.

10. Edited with Telugu notes, Vāvilla Press, Madras, 1918.

11. Vide : Sarasvatī Raṅgācārya's 'Life of Rāmānuja' (in Telugu) p. 137. Empress of India Press, Madras, 1903.

12. Vide : p. 150 of Vol. II. of the *Śotrārṇava* (in Telugu script), Ānanda Press, Madras, 1925.

vite poet and scholar and junior contemporary of Rāmānuja (1017-1137 A.D.) of blessed memory.

9. 'ज्ञानावलम्बकाः केचित् केचित् कर्मावलम्बकाः

वयं तु हरिदासानां पादत्राणावलम्बकाः'

— *Padyāvalī*, śl. 58, p. 25. ( 'कस्यचित्' ),

This is one of the well-known stanzas of Śrī Vedānta-Deśika (1268-1369 A.D.). The anecdote connected with this verse was given in the several biographies Śrī Deśika (in English, Telugu and Tamil), and we shall quote below that story that had given rise to the composition of this stanza :

"Jealousy, 'the green-eyed monster that doth mock the meat it feeds on,' knows no bounds. Others were so incensed at our hero (i.e. Śrī Deśika) as the owl at the sun, that they hung a pair of shoes in the front of his house in such a way that the shoes might hit him on the head when he came out. And it so happened. But our hero, not in the least disconcerted, then exclaimed :

'कर्मावलम्बकाः केचित्, केचित् ज्ञानावलम्बकाः

वयं तु हरिदासानां पादरक्षावलम्बकाः'.

(Some cling to actions for salvation ; others to knowledge ; but we cling to the slippers of the servants of the Lord.<sup>13</sup>)

The above story is also found in the *Muvvāyirappadi* or the *Guruparamparā-prabhāva* (of the Vādagalai sect of the Śrī Vaiṣṇavites) by the Brahmatantra-svatantra-svāmin the Third, already referred to, besides the *Life of Śrī Vedānta-Deśika* (p. XIX)—by Śrī A. V. Gopālācārya, (M.A., B.L.,) prefixed to Vol. I. of Śrī Vedānta-Deśika's poem, *Yādavābhyudaya* (Śrī Vāṇī Vilās Press, Śrīraṅgam, 1907), and the Introduction (pp. IX-X) by Śrī N. V. Deśikācārya (M.A., B.L.,) and G. Kastūri Rāṅga Aiyengār, (M.A.,) to *Vidyāvinoda*, Panappākam Ānandācārya's edition of Śrī Deśika's *Haṁsa-sandēśa* (Śrī Vaijayantī Press, Madras, 1903).

10. 'धुनोतु ध्वान्तं नस्तुलितदलितेन्द्रीवरवनम्

घनस्निग्धं श्लक्ष्णं चिकुरनिकुरं तं तव शिवे !

यदीयं सौरभ्यं सहजसमुपालब्धुमनसो

वसन्त्यस्मिन् मन्ये बलमथनवाटी विदपिनाम्'.

— *Rasika-Jivana*, IV, 14 śl. 98 p. ( 'शङ्करगुरुणाम्' ).

13. *Vedānta-Deśika—His Life & Literary Writings* (p. 15): By Śrī M. K. Tātācārya, B.A., (S. R. Press, Kuppam and Ananda Press, Madras, 1922).

This verse is from the *Saundarya-laharī* (43 śl.) of Śrī Śaṅkara Bhagavatpāda.

11. 'वहन्ती सिन्दूरं प्रबलकवरीभारतिमिर-

त्विषां बृन्दैर्बन्दीकृतमिव नवीनार्ककिरणम्  
तनोतु क्षेमं नस्तव वदनसौन्दर्यलहरी-  
परीवाहः स्रोतः सरणिरिव सीमन्तसरणिः'

—*Rasika-jīvana*, IV. 19 śl. 99 p. ( 'शङ्करगुरुणाम्' ).

This stanza also is from Śaṅkarācārya's *Saundarya-laharī*<sup>14</sup> (44 śl.), but the order of the lines is different ; thus line 1 begins with तनोतु l. 2—with परीवाहः ; l. 3—with वहन्ती ; and l. 4—with त्विषां । Also found in Śrī Appaya-dīkṣita's *Kuvalayananda*<sup>15</sup> (p. 86) as an illustration of *Prastutālāmkāra*, but the order of the lines is as in the *Rasika-jīvana*.

12. हरक्लोधज्वालावलिभिरवलीढेन वपुषा

गभीरे ते नाभीसरसि कृतझम्पो मनसिजः  
समुत्तस्थौ तस्मादचलतनये धूमलतिका  
जनस्तां जानीते तव जननि रोमावलि रिति'

— *Rasika-jīvana*, IV. 100 śl. 110 p. ( 'शङ्करगुरुणाम्' ).

This again is from the *Saundarya-laharī* (76 śl.)

In a paper—*Some unknown Sanskrit Poets of Mithilā*—contributed to *Mahāmahopādhyāya Dr. Gaṅgānāth Jhā Commemoration Volume*<sup>16</sup> (p. 363), *Vidyāsudhākara* Dr. Har Dutt Sharma, M.A., Ph.D., attributes the verses 10, 11 and 12 above to Śaṅkaraguru, the preceptor of Dāmodara who was the grand-father of Gadādhara Bhaṭṭa, the compiler of the anthology *Rasika-jīvana*. Dr. Sharma is correct in tracing the relationship of Śaṅkaraguru and Gadādhara, but the stanzas in question referred to as Śaṅkaraguru's do not, in fact, belong to this Śaṅkara but to the famous South Indian saint, poet and scholar, the revered Śaṅkarācārya, the author of *Saundarya-laharī* and many other works. Dr. Sharma might perhaps be surprised to know that all the three stanzas are found (as verses 43, 44 & 76) in the *Saundaryalaharī*. Thus we see that all the stanzas quoted above, except verse 4, were, in fact, the compositions of South Indian writers.

14. Printed in Telugu characters, with Telugu notes, Vāvilla Press, Madras, 1923.

15. Nirṇayasāgar Press, Bombay, 1925.

16. Poona Oriental Series, No. 39 (1937).

# NĀGARA, DRĀVIḌA AND VESARA

(continued from p. 38 of I.C. Vol. VI. no. 1.)

By K. R. PISHAROTI

## VII - Texts on the Styles.

### 1—SUPRABHEDĀGAMA<sup>45</sup>

#### (Chapter XXX)

*jātibhedam atah<sup>46</sup> śṛṇu /*

Listen now to the difference in type :

*nāgarāṃ drāviḍāṃ caiva*

(they are) held to be three-fold :  
*Nāgara* and *Drāviḍa* and *Kesara*.

*kesarāṃ<sup>47</sup> ca tridhā smṛtam /*

That which is circular from neck

*kaṇṭhādārabhya<sup>48</sup> vṛttāṃ<sup>49</sup> yat*

onwards is held to be *Kesara*.

*tat kesaramiti smṛtam / //*

That *Vimāna* which is octagonal  
from neck onwards is well-known as *Dravila*.

*grīvamārabhya cāṣṭāśraṃ<sup>50</sup>*

*vimānaṃ<sup>51</sup> draviḷākhyakam<sup>52</sup> /*

*sarvaṃ vai caturaśraṃ<sup>53</sup> yat*

That *Prāsāda*, however, which is  
square throughout is *Nāgara*.

*prāsādaṃ<sup>54</sup> nāgarāṃ tvidam<sup>55</sup> ///*

45. Compare TMSTA, which states that the extract is taken from chapter XXX.

46. The term is to be understood in the sense not of caste but type.

47. The text reads *Kesaram* and in place of it the term *Vesaram* is suggested, for the term *Kesara* is never found in any other text. Particularly in view of the fact that the origin and meaning of the term *Vesara* is doubtful, we would rather retain the original term. This term means the hair on the brow, the mane of a horse or lion. Have we here the suggestion of a head-like structure which ultimately becomes circular?

48. *Kaṇṭha*, *grīva*, *gala* all mean neck.

49. The reference here is to a cone or dome on a circular base.

50. This is a pyramid on an octagonal base.

51. See note 39 *ante*.

52. This is a variation of the term *Drāviḍa*.

53. This refers to a pyramid on a square base.

54. See note 39 *ante*.

55. Note the verbs used in this extract. They suggest that the author is familiar with *Nāgara* and *Drāviḍa* structures, but he simply accepts the traditional form for the *Vesara* type.



## II—KĀMIKĀGAMA

(Pāṭala 49)

nāgarādivibhedāni tu  
pravakṣyāmi viśeṣataḥ /

vindhyaṅtāni ca kṛṣṇāntāni

kanyaṅtāni tu himācalāt

tasmat tasmāt tridhā dhātṛi  
yuktassattvarajastamaḥ //

nāgarāni drāviḍāni<sup>56</sup> caiva  
vesarāni sarvadeśikāni /  
nāgarāni sāttvike kṣetre  
vesarāni syāt tamodhike /  
rājase drāviḍāni sarva [?deśe]  
deśyāni [? sarvāni] sarvatra sam-  
matam /

viṣṇurbrāhmā haraśceti  
viprarājanyavaiśyakāḥ /  
nāgare drāmiḍe dhāmni  
vesare tvadhipāḥ smṛtāḥ //  
upāna<sup>57</sup>stūpi<sup>58</sup>paryantāni  
yugāśraṇi nāgarāni bhavet  
kaṇṭhāt prabhṛti vṛttāni yat  
vesarāni parikīrtitam  
kaṇṭhāt prabhṛti vasvaśraṇi  
drāmiḍāni parikīrtitam /

sārvadeśikadhāmnyetan-  
nāgarādyam prakīrtitam /

caturaśṛyātāśraṇi tan-  
nāgarāni parikīrtitam

I shall now specially describe the  
differentiation of styles, *Nāga-*  
*ra* and the rest.

From the Himalayas to the end  
of the Vindhya, to that of the  
Krishna, and to that of the  
Cape Comorin,

three-fold are the regions, cha-  
racterised by *Sattva*, *Rajas* and  
*Tamas*.

*Nāgara*, *Drāviḍa*, and *Vesara* are  
the styles current in all parts.  
And of these *Nāgara* is to be in  
*Sāttvika* region, *Vesara* in *Tā-*  
*masa* region and *Drāviḍa* in  
*Rājasa* region : or all are pre-  
scribed for all regions.

Viṣṇu—brahmin, Brahmā—  
rājanya and Hara—vaiśya are  
held to be presiding deities of  
*Nāgara*, *Drāviḍa* and *Vesara*.  
That is *Nāgara* which is square  
from the foot to the finial.

What is circular from neck on-  
wards is well-known as *Vesara*.  
What is octagonal from neck on-  
wards is well-known as *Drā-*  
*miḍa*.

These are the *Nāgara* and other  
types of temples current in all  
parts.

That is described as *Nāgara*  
which is square or rectangu-  
lar.

56. See *Drāviḍa*. *Drāmiḍa* is another variant for *Drāviḍa*.

57. *Upānaha* is the slipper. This is the name given to the part of the  
structure below the plinth.

58. *Stūpi* is the finial. Vide IC. Vol. III, No. ii, pp. 253-258.

aṣṭāśraśca śaḍaśraśca<sup>59</sup>  
tattadāyāmameva ca /  
saudhaṁ drāviḍamityuktaṁ  
vesaraṁ tu prakathyate /  
vṛttaṁ vṛttāyataṁ cāśraṁ-  
vṛttaṁ cānyaṁ prakīrtitaṁ //

That edifice is held to be *Drāvi-  
ḍa* which is hexagonal or octa-  
gonal, regular or elongated.  
*Vesara*, however, is described as  
being circular or ellipsoidal,  
or apsidal or any other circular  
form.

### III—MAYAMATA

#### (Chapter XIX)

##### (A)

stūpyantaṁ caturaśraṁ yan-  
nāgaraṁ parikīrtitaṁ / //

That which is square up to the  
*Stūpi*-end is well-known as  
*Nāgara*.

grīvāt prabhṛti vasvaśraṁ  
vimānaṁ dramilaṁ<sup>61</sup> bhavet /

That *Viṁāna* which is octagonal  
from *Grīva* onwards may be  
*Dramila*.

grīvāt prabhṛti vṛttaṁ yad-  
vesaraṁ tadudāhṛtaṁ<sup>62</sup> / //

That is explained as *Vesara*  
which is *Vṛtta* from *Grīva*  
onwards.

#### (Chapter XIX)

##### (B)

nāgaraṁ drāviḍaṁ caiva  
vesaraṁ ca tridhā smṛtaṁ /  
caturaśrāyatāśraṁ yan-  
nāgaraṁ parikīrtitaṁ //

*Nāgara*, *Drāviḍa* and *Vesara* are  
held to be three-fold.

That is described as *Nāgara*  
which is square or rectangu-  
lar.

aṣṭāśraṁ ca śaḍaśraṁ ca  
tattadāyāmam eva ca /  
saudhaṁ drāviḍamityuktaṁ

The edifice is held to be *Drā-  
viḍa* which is hexagonal or  
octagonal, regular or elon-  
gated.

59. This refers to a pyramid on a hexagonal base.

60. On the basis of the text in the MM., we may read this as *Dvyaśra*, i.e. apsidal. Then the next variety becomes anyan vṛttaṁ : probably this might mean the star-shaped. See, however, Section VI last para.

61. Here again we have another interesting variant for *Drāviḍa*.

62. The use of the term *udāhṛtaṁ* side by side with *parikīrtitaṁ* and *bhavet* is significant. See note 53 ante.

vesaraṁ tu prakathyate / //  
vṛttaiḥ vṛttāyataiḥ dvyaśram  
vṛttaiḥ cānyam prakathyate.

*Vesara*, however, is described as being circular, or elliptical, or apsidal (or any other circular form).

Chapter XXI—Verse 99 p. 136.

(C)

syānnāgaraṁ drāviḍavesaraṁ ca  
krameṇa vai sattvarajastamāṁsi /

*Nāgara*, *Drāviḍa* and *Vesara* are in order *Sattva*, *Rajas* and *Tamas*.

mahīsurorvīpativaiśyakāste  
harirvidhātā hara ādhidaivāḥ //

They are also *Brāhmin*, *Kṣatriya* and *Vaiśya* and have as their presiding deities *Hari*, *Brahmā* and *Hara*.

IV—Īśānagurudevapaddhati — Paṭala XXX — pp. 303 & following.

nāgaraṁ drāvilam<sup>64</sup> caiva  
vesaraṁ ca tridhā matam /

*Nāgara* and *Drāvila* and also *Vesara* are held to be the three-fold.

caturaśram vāyatāśram  
nāgaraṁ tat pracakṣate /

That edifice is described as *Nāgara* which is square or rectangular.

ṣaḍaśram vāthavāṣṭāśram  
samaṁ vā dīrgham eva vā

That is described as *Drāvila* which is hexagonal or octagonal, regular or elongated.

drāvilam saudhamuddiṣṭam  
vedāśram vā galādadhah  
kaṇṭhād upari cāṣṭāśram

That which is square below the neck and octagonal above neck is also held to be *Drāvilam*.

tadapi drāvilam smṛtam.  
vṛttaiḥ vṛttāyataiḥ vāpi  
dvyaśram vṛttamathāpi vā  
kaṇṭhādadhasthādvedāśram  
tadūrdhvaṁ vartulam ca yat  
vimānaṁ vesarākhyam syād  
trayaṁ tat triguṇam smṛtam.

That *Vimāna* which is circular or even ellipsoidal or again even apsidal or which is square below neck and circular above neck is *Vesara*.

The three are held to have three *Guṇas*.

63. The four lines agree with the text in KA. We are inclined to think that the latter work has borrowed from the former. See section II,

64. This word is also found used in the SA,

sāttvikam nāgaram tat syād<sup>65</sup>  
rājasam drāvilaṁ smṛtam  
tāmasam vesaram ceti.  
trayam brahmādidaivatam

triyugam tat ; trivarnam ca  
tritattvam ca kramāt smṛtam.

nāgarasya smṛto deśaḥ  
himavadvindhyamadhyagaḥ  
drāvilyocito deśo  
drāviḍaḥ syānna cānyathā.

agastyavindhyamadhyastho  
deśo vesarasammataḥ / //

sarvāṇi sarvadeśeṣu  
bhavantītyapi kecana //

That *Nāgara* will be *Sāttvika* ;  
*Drāvila* is held to be *Rājasa* and  
*Vesara* *Tāmasa*.

These three are respectively held  
to be associated with three  
gods,

*Brahmā* and rest : three *Yugas*,  
three *Varṇas*, and three *Tat-  
tvas*.

The region of *Nāgara* is held to  
lie between the Himalayas  
and the Vindhyas.

The proper region for *Drāvila*  
is *Drāvida* and not any other.

The region approved for *Vesara*  
is what stands between the  
Agastyas and the Vindhyas.

Some, however, hold that all  
these may even be in all  
regions.

### V—TANTRASAMUCCAYA

mūlādyāśikharam<sup>66</sup> yugāśraraci-  
tam<sup>67</sup> geham smṛtam nāgaram

grīvādyāśikharakriyam śaḍuragā-  
środbheditam drāviḍam /

mūlādvā galato 'thavā parilasad  
vṛttātmakam vesaram.

An edifice which is built square  
from the plinth to the *Śikha-  
ra* is held to be *Nāgara* ;

which is built differently as  
hexagonal or octagonal above  
the neck to the end of *Śikha-  
ra* is *Drāviḍa* ;

which is perfectly circular from  
above the plinth or from above  
the neck is *Vesara*.

65. The rest of the text following is found reproduced in the SR (see Vol. I, p. 83) with the difference that it reads *Drāviḍa* in place of *Drāvila* and *tricakra* instead of *tritattva*. In this case it goes without saying that the latter text is quoting from the former.

66. The original text of TS and the three unpublished commentaries which we have consulted have this reading. Compare TMSTA for a variant which is given in SR.

67. The term *yuga* is understood by all commentators as meaning four. The idea of *two* which TMSTA gives is not countenanced by any Indian writer,

teṣvckam prthagāttalakṣmasu<sup>68</sup>  
vidadhyādātmanah samma-  
tam //

Any one of these with its own  
characteristics may be chosen,  
according to one's liking.

## VI & VII

### KĀŚYAPAŚILPA—Chapter XXV.

#### ŚILPARATNA—Chapter 16.

#### (A)

*Ka. śaśilpa p. 54*

*Śilparatna p. 83*

nāgarādivimānānāṁ  
lakṣaṇaṁ vakṣyate 'dhuṇā  
hīmādrīkanyayorantargato  
deśa udāhṛtaḥ.  
so'pi deśas tridhā bhinnah  
tattaddeśodbhavaṁ gupaiḥ.  
yathaiva dehīnāṁ deho vātapitta-  
kaphātmanah  
tathā hyetat jagat sarvaṁ  
vijñeyaṁ triguṇātmakam.  
sāttvikaṁ tāmasaṁ caiva  
rājasaṁ ca tridhā smṛtam.  
hīmādrīvindhyaorantar  
gatā sattvā vasundharā  
vindhyaśailādīkṣṇāntaṁ  
rājasākhyā mahī matā.  
kṣṇāvyādīkanyāntaṁ  
tāmasaṁ bhūtalāṁ bhavet.  
nāgarāṁ sāttvike deśe  
tāmase pesaram bhavet  
rājasaṁ drāviḍe deśe  
kāmadevaṁ hi bhāvayet<sup>69</sup>.  
sāttvike nāgare harmyaṁ<sup>70</sup>  
tāmase vesarālayau

hīmādrīkanyayorantargato deśa  
udāhṛtaḥ.

so'pi deśastridhā bhinnah  
tattaddesabhavaṁ gupaiḥ.  
yathaiva dehīnāṁ dehaṁ  
vātapittakaphātmanah  
tathāivedaṁ jagat sarvaṁ  
vijñeyaṁ triguṇātmakam

hīmavadvindhyaorantardhyāṁ  
sāttvikaṁ bhūtalāṁ smṛtaṁ  
vindhyaśailādīkṣṇāntaṁ  
rājasaṁ parikīrtitaṁ.  
punah kṣṇādīkanyāntaṁ  
tāmasaṁ bhūtalāṁ bhavet  
nāgarāṁ sāttvike deśe  
rājase drāviḍam bhavet  
vesaraṁ tāmase deśe  
krameṇa parikīrtitāḥ.

68. Following the commentators, we have taken *āttalakṣmasu vidadhyāt* instead of *attalakṣma suvidadhyāt*.

69. SR gives the correct text.

70. The lines following repeat the idea of the preceding four lines and hence are omitted in SR.

rājasailḥ drāviḍailḥ harinyam  
 kramātpundaśīyoṣitah  
 viṣṇurmaheśvaro dhātā  
 kramāddharmyādidevatāḥ.  
 nāgaram bhūsuram vidyāt  
 vesaram vaiśyam ucyate  
 drāviḍam tannipam jñeyam  
 mātratī śrṇu suvrtā<sup>71</sup>.

viṣṇurvedhaḥ śivaḥ sākṣāt  
 kramāt taddhāmadevatāḥ.  
 nāgaram bhūsuro jātyā  
 vesaram vaiśya ucyate  
 drāviḍam tu nṛpo jñeyah  
 ākrūṭh kathyate'dhunā.

(B)

p. 56.

p. 84.

athavānyaprakārataḥ  
 janmādistūpiparyantam  
 yugāśram nāgaram bhavet  
 vasvaśram śīrṣam kaṇṭham vī  
 drāviḍam bhavanam bhavet.

janmādistūpiparyantam  
 yugāśram nāgaram bhavet  
 vasvaśram śīrṣakam kaṇṭham  
 drāviḍam bhavanam bhavet.

(C)

p. 56.

pp. 86.

lingam ca pīṭhikām caiva  
 prāsādam caikajātikam  
 sarvasampatsamṛddhyai syān-  
 nṛpater vāstumajjanam.  
 parīte viparīte vā  
 rājarāṣṭrabhayaṁkaram  
 tasmāt sarvaprayatnena  
 ekajātyaivamācaret.  
 nāgare sakalam śāntam  
 vesare yānapatnikam  
 bhogam vīram ca nṛttam ca  
 drāviḍe bhavane bhavet.

bimbam ca pīṭhikām caiva  
 prāsādam caikajātikam  
 karotu sarvasampattyai  
 nṛparāṣṭrajanasya ca  
 viparītam vipattyartham  
 rājarāṣṭrabhayaṁkaram.

nāgare sakalam śāntam  
 vesare yānamūrtikam  
 bhe [?ogam] vīram ca nṛttam ca  
 drāviḍe bhavane nyaset.

Translation<sup>72</sup>

The characteristics of Nāgara and other types of Vimānas are now laid down.

Deśa is held to be the land lying between the Himalayas and the Cape. This is held to be of three kinds based upon the characteristics of different regions.

71. The correct text is given in SR.

72. The translation follows the text given in the SR.

As the human body is composed of three qualities of *Vāyu*, *Pitta* and *Kapha*, so is the whole world composed of the three *Guṇas* of *Sāttva*, *Rajas* and *Tamas*.

The region lying between the Himalayas and the Vindhya, is *Sāttvika*, between the Vindhya and the Krishna, *Rājasa* and between the Krishna and the Cape, *Tāmasa*.

*Nāgara* is held to be in the *Sāttvika* region, *Drāviḍa* in the *Rājasa* region and *Vesara* in the *Tāmasa* region.

Viṣṇu, Maheśvara and Brahmā are the three presiding deities of these three styles; *Nāgara* is held to be *Brāhmin*, *Vesara* *Vaiśya* and *Drāviḍa* *Kṣatriya*.

Or from another point of view :

That may be termed *Nāgara* which is square from the base to the *Stūpi*, that which has an octagonal head and neck may be *Drāviḍa*, and that which has a circular neck and head is *Vesara*. This differentiation is laid down for such *I'mānas* which have no *Kūla* or *Koṣṭha*.

The idol, its pedestal and the *Prāsāda* must all be of the same shape. Such ensures prosperity for king, his country and people. When it is otherwise, it ensures adversity for the king and his country and people.

In *Nāgara* is to be enshrined all *Sānta Mūrtis*; in *Vesara*, moving deities and in *Drāviḍa*, enjoying, or dancing or heroic *mūrtis*.

*D—Śilparatna* (Vol. I—page 83).

Sāttvikāṁ nāgarāṁ tat syād rājasāṁ drāviḍāṁ smṛtam  
tāmasāṁ vesarāṁ ceti trayam brahmādidaivatam  
triyugaṁ tat trivarnaṁ ca tricakraṁ ca kramāt smṛtam  
nāgarasya smṛto deśaḥ himavadvindhyamadhyagaḥ  
drāviḍasyocito deśaḥ drāviḍaḥ syānnacānyathā  
agastyavindhyamadhyastho deśo vesarasammataḥ  
sarvāṇi sarvadeśeṣu bhavantiyapi kecana.<sup>73</sup>

#### VIII—*Mānasāra*<sup>74</sup>

|  |   |
|--|---|
| caturaśrakākṛtīm yat tu nāgarāṁ prakīrtitam  | 1 |
| mūlād vā vṛttamākarāṁ tad vṛttāyatameva vā   | 2 |
| grīvādistūpiparyantaṁ grīvasyādho yugāśrakam | 3 |

73. This part of SR is a quotation from IGDP and it has been translated in connection with that text. Hence it is not repeated here.

74. This text has formed the subject of a paper published in the IHQ : Vol. XIII, no. 2. pp. 250-357.

|  |   |
|--|---|
| āmūlāgraṁ dvyaśrakam vā vesarīnāmakam bhavet     | 4 |
| mūlādvā stūpiparyantam aṣṭāśrakam vā ṣaḍaśrakam  | 5 |
| tadeva cāyataṁ vāpi grīvasyādho yugāśrakam       | 6 |
| pūrvavaccordhvadeśam syād drāviḍam parikīrtitam. | 7 |

## Translation

1. That which has a square shape is well-known as *Nāgara*.
2. What is circular or ellipsoidal from the base (onwards)
3. or from above the neck to the *Stūpi*, the part below being square,
4. or what is apsidal from the base to the top may be termed *Vesari(a)*.
5. From the base onwards to the *Stūpi* what is hexagonal, or octagonal,
6. or the same elongated; or what has the part below neck square,
7. the part above being as laid down, is termed *Drāviḍa*.<sup>75</sup>

75. The term *aśra*, also *asra* and *aśrī* and *asrī* all mean the same thing. The expression means the sharp side of anything, corner, angle (of a room or a house) the edge of a sword. From this point of view the term *caturasra*, to take one of the terms frequently used in this context, may mean *four-angled*, *four-cornered* or *having four sharp sides* or as *having four faces*. Any of these senses would suit the context, though we should take it in the last of the senses. It deserves to be noticed here that the term, *caturasra*, must be understood in the sense that it is regular *caturasra*, that is, all the four sides, four angles, and the length from side to side and from corner to corner must be equal. If any of these is not equal then it cannot be a *caturasra*. It then becomes an *āyatacaturasra* or an irregular figure. But even this term must be understood in the sense that the opposite sides must be equal as well as the opposite angles. This aspect is made clear under each type, though even here it must be understood that the longer side must bear a fixed proportion to shorter side. Hence *caturasra* means a pyramid on a square base; and in this sense must be understood the other expressions such as *aṣṭāśra*, *ṣaḍaśra* etc. Now when we remember that a cone over a circular base is generally called a *Vṛtta* and not *vṛttāśra*, we get the idea that the term *asra* must be understood only in the sense of a straight line, and in this context only in the sense of a straight side. It may also be pointed out that it is not quite correct to render the term *asra* by the term *koṇa*. This latter means corner, possibly also an angle, but in none other sense, and from the first of these senses we come to understand that it means a point. Thus compare the two *agnikoṇa* and *caturasra*. We have never found these terms interchanged: thus *agnyasra*



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and *catuṣkoṇa* are never found used. Hence we find *koṇa* and *asra* cannot be equated. Hence *asra*, being distinct from *koṇa*, a point, must refer to a side i.e. line. Hence *caturasra* would mean a four-sided figure or building. That *asra* means side is also made clear in this text in the section that immediately precedes the differentiation of types. It may be noted here that the term *catura* by itself means a square : at least it is popularly used in this sense. Hence *caturasra* has to be distinguished even from this. The former refers to to a mere surface properly having only two dimensions, but the latter has reference to figures having three dimensions i.e. to solids.

## 'PACATI BHAVATI' AND 'BHAVED API BHAVET'

### IN THE MAHĀBHĀṢYA

By K. MADHAVA KRISHNA SARMA

We have one indubitable evidence that Sanskrit continued to be a spoken language long after Kātyāyana, namely, two new types of sentences which, as we know from Patañjali, developed in the spoken language in the interval between the Vārttikakāra and himself and were not known to his predecessors. In the Mahābhāṣya on Pāṇini 1.3.1

Patañjali puts the question : का तर्हीयं वाचोयुक्तिः—भवति पचति, भवति पश्यति, भवत्यपक्षीदिति, and answers : एषैषा वाचोयुक्तिः । पचादयः क्रिया भवतिक्रियायाः कर्तृणो भवन्तीति । यद्यपि तावदूर्तं तच्छक्यते वक्तुं यत्तान्या चान्या च क्रिया, यत् खलु सैव क्रिया तत्र कथम्—भवेदपि भवेत् स्यादपि स्यादिति । अत्राप्यन्यत्वमस्ति । कुतः । कालभेदात्साधनभेदाच्च ।

The vein in which Patañjali asks the question—का तर्हीयं वाचोयुक्तिः as well as that in which he answers it—एषैषा तर्हि वाचोयुक्तिः—show that these were new types of sentences which had just arisen in the spoken language of his time and had not till then obtained grammatical sanction. The question कातर्हीयं वाचोयुक्तिः :how is it then said—indicates also the spoken nature of these sentences.

Before pointing out that these two types of sentences were not known to Pāṇini and Kātyāyana, let us briefly examine the various stages through which the idea of Ekavākyatva has passed. So far as I am aware, no one has as yet dwelt upon this subject. A brief examination of it from the standpoint of the Pāṇinian school would not, therefore, be out of place here.

The earliest known scientific definition of Vākya is that given by Jaimini :

अर्थैकत्वादेकं वाक्यं साकांक्षं चेद्विभागे स्यात् ( 2. 1. 46 )

i.e., unity in meaning is unity in thought and according to this Jaimini-Sūtra sentence is the unit of thought expressed i.e. the unit of speech. A definition more or less similar to this is given also by the Kātyāyana-śrauta-sūtra (1. 3. 2). These definitions may be des-

cribed as semantic in character, as they are based on the meaning rather than on the forms of words constituting a sentence.

Pāṇini does not define Vākya. His reasons for this are quite obvious. In writing his grammar Pāṇini adopts a strictly analytical and morphologicistic standpoint and his main concern is with the constituents<sup>1</sup> of the sentence (which he analyses to the last element, viz., the root) rather than with Vākya as a whole. In fact all the earliest grammarians must have concerned themselves only with words (Padas) and their forms and not also with Vākya i.e. syntax. Pāṇini of course deals with syntax to some extent, but he does not refer to any ancient authority on this subject. This is how Vyākaraṇa has come to be called Pada in contrast to Vākya which stands for Mīmāṃsā. We can even go a step further and point out that there must have been a definite period in the history of Sanskrit grammar when the line that divided grammar from lexicography was faint and invisible. We have a glimpse of this in the Paspasāhnikā where Patañjali has a discussion about the propriety of the method adopted by Pāṇini<sup>2</sup>:

“अथैतस्मिं शब्दोपदेशे सति किं शब्दानां प्रतिपत्तौ प्रतिपदपाठः कर्तव्यः  
गौरवः पुरुषो हस्ती शकुनिर्मृगो ब्राह्मण इत्येवमादयः शब्दाः पठितव्याः । नेत्याह” ॥

The Padapāṭha in whose constitution grammar had to play not a small part, might have also in a measure been responsible for this method. Śākalya was both a Padakāra and a grammarian. It is in the beginning of this lexicographical period that we have to look for the rise of the non-etymologicistic schools. The works<sup>3</sup> of these grammarians must have contained long lists of correct words, some Sandhi rules and something of phonetics. There might not have been any analysis like that of Padas into Pratyayas and Prakṛtis. Both in the etymologicistic and non-etymologicistic schools grammar had to pass through various stages. But it is not our object to deal with that subject here. Suffice it to point out that Pāṇini the greatest of the Indian grammarians, has struck a golden mean between the two ex-

1. Cf. पाणिनीयं महाशब्दं पदमाधत्तलक्षणम् ; L. S. Mañjūśā p. 807 (Chowkhamba Sans. Series).

2. Vol. I, p. 5.

3. Samasrami refers to some works of this type in his Niruktālocana. Vide A Descriptive Catalogue of Sanskrit Mss., Asiatic Society of Bengal, Vol. II, p. 293.

tremes of linguistic speculation. He analyses mostly those words into Pratyayas and Prakṛtis which yield a definite law of Utsarga and Apavāda. While certain words yield a reasonable analysis, the same cannot be said of all of them ; hence he has Nipātas, etc.

The contact with Mīmāṃsā and other philosophical schools gave a new turn to grammatical speculations ; and side by side with the analytical, the later grammarians adopted the synthetical method, which in its turn gave rise to the various clear-cut Śābdabodha theories, and had its logical consequence in the establishment of the Vākyasphota as the ultimate reality and of everything else as illusory i.e. adopted only for theoretical purposes : वाक्यस्फोटोऽतिनिष्कर्षे तिष्ठतीति मतस्थितिः ।<sup>4</sup>

It has been pointed out above that Pāṇini does not define Vākya. Nevertheless, he refers to it on some occasions and must have had a clear definition in his mind. His definition of Padas ( सुप्तिङन्तं पदम् 1.4.14) may help us in drawing an inference that he had in his mind a morphological definition as that (सुप्तिङन्तचयो वाक्यम्) given by Amarasiṃha—a very close student of Pāṇini. The second definition क्रिया वा कारकान्विता i.e. the semantic definition, is given by the lexicographer according to others.

Kātyāyana gives the following two definitions.

- (1) आख्यातं साव्ययकारकविशेषणं वाक्यम् (P. 2.1.1).

Patañjali explains :

आख्यातं साव्ययं सकारकं सकारकविशेषणं वाक्यसंज्ञं भवतीति वक्तव्यम् ।  
साव्ययम्—उच्चैः पठति । नीचैः पठति । सकारकम्—ओदनं पचति । सकारक  
विशेषणम्—ओदनं मृदुविशदं पचति । सक्रियाविशेषणं चेति वक्तव्यम् । सुप्तु पचति  
दुष्टु पचति.....॥

This definition does not cover a sentence like Brūhi brūhi which consists of two unqualified identical Ākhyātas ; hence Kātyāyana gives another : (2) Ekatiṇ :

एकतिङ् वाक्यसंज्ञं भवतीति वक्तव्यम् । ब्रूहिब्रूहि ॥

Eka means identical. That is also an Ekavākya which consists of any two identical Tiṇantas. It is deserving of notice that in the Mahābhāṣya on these two Vārttikas Patañjali does not mention Pacati bhavati because he knows that this sentence was not there in Kātyāyana's

language ; even in his own days it had not, as is indicated by the nature of his inquiry—कातर्हयं वाचोयुक्तिः etc., gained sufficient ground.

Moreover Pacati bhavati is the object neither of Pluta nor of Nighāta<sup>5</sup> and no purpose would be served by discussing its Ekavākya<sup>6</sup> here ; he is therefore silent on this. But the later commentators who while accepting Pacati bhavati as an Ekavākya have to prevent Nighāta in it, are at pains to interpret the two definitions with regard to this sentence. They are therefore constrained to make a distinction<sup>6</sup> between Pacati bhavati and other sentences. According to them, Pacati bhavati is a Laukika (empirical) Vākya, not Śāstrīya, and is not therefore the object of Nighāta ; but as we have seen above, neither Kātyāyana nor Patañjali knows this distinction between Laukika and Śāstrīya, not to speak of Pāṇini who has not touched upon this subject. What therefore seems reasonable to assume is that sentences like Pacati bhavati existed neither in Pāṇini's nor Kātyāyana's language, but came into vogue only in Patañjali's. Bhartṛhari seems to be the first grammarian to make this distinction between Laukikavākya and Śāstrīyavākya. Says he :

निघातादिव्यवस्थार्थं शास्त्रे यत्परिभाषितम् ।

साकांक्षावयवं तेन न सर्वं तुल्यलक्षणम् ॥

(Vākyapadīya 2.3).

The following commentary on Vākyapadīya 2.450 makes it plain that according to Kātyāyana, no Vākya consists of more than one verb (identical two Tīñantas excluded).

इह वार्तिककारेणाख्यातं साव्ययकारकविशेषणं वाक्यमित्यत्रैकवचनस्य  
विवक्षितत्वादेकतिङिति वाक्यलक्षणान्तरप्रतिपादनादाख्यातसद्भावे वाक्यभेद एवेष्यते ॥

So, in order to prevent Nighāta in it, the later commentators mark off Pacati bhavati from other sentences as pointed out above. In this respect they stick to Kātyāyana's definition and unreasonably question the necessity of saying 'atiñ' in P. 8.1.28; but from the historical point of view, it is plain that Pāṇini does not know the sentence Pacati bhavati. His object in having 'atiñ' in 8.1.28 is to avoid Nighāta when verbs belonging to different sentences happen to be placed side by side. He does not confine the operation of this rule to Samānavākya ; and this is why the intelligent Patañjali, who knew

5. P. 8. 1. 28.

6. See the Mahābhāṣya, Pradīpa and Uddyota on this ; also vide the L. S. Mañjūṣā, p. 810.

Pāṇini better than any of his predecessors and successors, gives under P. 8.1.28 *Pacati karoti*<sup>7</sup> and not *Pacati bhavati* as an instance to the contrary.

Patañjali : अतिङिति किमर्थम् । पचति करोति ।<sup>8</sup>

Kātyāyana : अतिङ्वचनमनर्थकं समानवाक्याधिकारात् ।

Hari says : एकतिङ् यस्य वाक्यन्तु शास्त्रे नियतलक्षणम् ।

तस्यातिङ्ग्रहणेनार्थो वाक्यभेदान्न विद्यते ॥

Vākyapadīya, 2.451.

The idea of *Ekavākyatva* does not stop with *Pacati bhavati* but expands further. In some later works,<sup>9</sup> especially in those relating to the *Śābdabodha* philosophy, we often meet with *Paśya mṛgo dhāvati* which is regarded as one sentence by post-Patañjalian grammarians. But *Naiyāyikas* and others do not in this respect agree with them. The former's position may be clarified as follows :—Generally *Kriyā* has *Anvaya* only with a *Kāraka*, but in certain cases one *Kriyā* can as well be the *Karma* or *Kartā* of another. In the former sentence *pacati* is the *Kartā* of *bhavati*. In the latter the whole sentence *Mṛgo dhāvati* (meaning *Mṛga-kartṛka-dhāvana*, according to *Vaiyākaraṇas*) is *Karma* in reference to *paśya*. The *Śābdabodha* will be *Mṛga-kartṛka-dhāvana-karmakam darśanam*.

It may be objected that as all *kriyās* are *Sādhya-rūpas* (not yet ready-made), one *Kriyā* cannot have *Anvaya* with another which is also of the same nature and that it has to be connected always with a *Siddha* (*Dravya* i.e. ready-made thing) which alone can satisfy its expectancy. To this the grammarian replies as follows :—

क्रिया न युज्यते नित्यं क्रियानाधारकारकैः ।

असत्त्वरूपता तस्या इयमेवावधार्यताम् ॥

(Vākyapadīya, Ben. Sans. Series, Kāṇḍa 3, p. 277).

When we say that *Kriyās* are *Asattvarūpas* and as such one *Kriyā* cannot directly connect itself with another, what we mean is that it has no direct *Anvaya* with *Kāraṇas* which are not *Kriyādhāras*.

It is necessary to explain what is meant by *Kriyādhāra-kāraṇas*. In the *Śābdabodha* analysis every *Kriyā* resolves itself into a *Vyāpāra* and a *Phala* (an operation and its result); *Vyāpāra* exists in its *Kartā* (the

7. See also Patañjali on 8. 1. 18

8. But *Kāśikā* and other later works give *Pacati bhavati*.

9. See *Praughamanoramā*, *Śabdaratna* and *Bhairavī*, Kāśi Sans. Series No. 58, Part I, pp. 526 et seq. L. S. Mañjūśā p. 797.

agent) and Phala in its Karma. For example, when we say Devadattaḥ taṇḍulam pacati, Devadatta is the Āśraya of that (Vikṛtṭyanukūla) vyāpāra and Taṇḍula is the Āśraya of its Phala which is here Vikṛtṭi, i.e. softness or wetness produced in the rice. The direct Anvaya of a Kriyā is always with these two, namely, Kartā and Karma, which are said to be Kriyādhāraṇakāraṇas. But it is not so with the other Kāraṇas. When we say Bhūmyām āste Devadattaḥ the relation of Āsanakriyā to Adhikaraṇa (Bhūmi) is only through its Kartā. In the Vākya-paṭīya Hari says :

कर्तृ कर्मव्यवहितामसाक्षाद्वारयात्क्रियाम् ।

उपकुर्वत्क्रियासिद्धौ शास्त्रेऽधिकरणं स्मृतम् ॥

In स्थाल्यां पचति तण्डुलम् Pākakriyā is related to Sthālī only through Taṇḍula. So also the other Kriyānādhāraṇakāraṇas.

It is in this analysis of Kriyā into Phala and Vyāpāra that we have to look for the explanation of Kriyāviśeṣaṇas and the reason for putting them in the accusative. When we say ओदनं मृदुविशदं पचति the Kriyāviśeṣaṇa मृदुविशदम् does not stand for any modus operandi but only qualifies Phala which is (as explained above) part of that Kriyā. It is according to the maxim व्यपदेशिवदेकस्मिन् that Phala is here spoken of as Kriyā and its Viśeṣaṇa as Kriyāviśeṣaṇa. Thus can we understand what is exactly meant by the apparently paradoxical (because Kriyāviśeṣaṇas are Avyayas) axiom — क्रिया-विशेषणानां कर्मत्वं न पुंसकलिङ्गता च often quoted by grammarians. Kriyāviśeṣaṇas are treated as Karmakāraṇas in regard to the case in which they are to be put because they qualify Phala which in its turn is directly related to Karma.

The object of the above analysis of Kriyā and Kriyāviśeṣaṇa is to point out that Kriyā has direct Anvaya only with Kartā and Karma. But it must be remembered that there is no restriction that this Kartā and Karma must be expressed only by nouns. In Śābdabodha meaning is far more important than the form of the words and it is quite sufficient even if these ideas are expressed by verbs. In Pacati bhavati pacati conveys the idea of Kartā. In Paśya mṛgo dhāvati, either the verb dhāvati or the whole sentence Mṛgo dhāvati stands as Karma in reference to paśya.

Unlike Pacati bhavati this lacks the support of the Munitraya. It might have of course been there even in their times, but not as one sentence. The idea of Ekavākyatva regarding this (Paśya mṛgo

dāvati) originated probably with Bhartṛhari. Patañjali's silence cannot be taken as a tacit consent because in the passage referred to above (का तर्हीयं वाचो युक्तिः, etc.) Patañjali speaks of verbs becoming only Kartās and not Karmakāraṅkas also; nowhere does he say that one Kriyā can be the Karma of another. The later commentators usually quote the following Mahābhāṣya in support of their view.

क्रियापि कृत्रिमं कर्म । क्रियापि क्रियेप्सिता भवति । कया क्रियया ? सन्दर्शनक्रियया प्रार्थयतिक्रियया वाध्यवस्यतिक्रियया वा । इह य एष मनुष्यः प्रेक्षापूर्वकारी भवति स बुद्ध्या तावत्कञ्चिदर्थं पश्यति, सन्दृष्टे प्रार्थना, प्रार्थनायामध्यवसायः, अध्यवसाय आरम्भः, आरम्भे निवृत्तिः, निवृत्तौ फलावाप्तिः । एवं क्रियापि कृत्रिमं कर्म ॥

(1.4.32.)

Nāgeśa takes the first sentence, and in order to find some justification for the Ekavākyatva of Paśya mṛgo dhāvati misconstrues<sup>10</sup> it to mean that even one verb can be the Karma of another. The correct interpretation is given by Kaiyaṭa which is as follows :

प्रतीयमानक्रियापेक्षः कारकभावः प्रविश पिण्डीमित्यादाविवान्नेति भावः ॥

What Patañjali exactly means is this : In instances like the above Kriyā can also in a secondary sense be called Karma. Here every succeeding Kriyā is inferred from the preceding one and on account of their Niyatapaurvāparya the preceding one is said to be the cause of the succeeding one i.e. one Kriyā implies another of which it is a necessary predecessor and in this sense the succeeding Kriyā is said to be the Karma of the one preceding it. In the parallel instances given by Kaiyaṭa, geham and bhakṣaya are implied respectively. From the extract given below, it may be seen that Patañjali says this in quite a different context which in no way throws any light on the Ekavākyatva of Paśya mṛgo dhāvati and that Kaiyaṭa's interpretation is correct.

क्रियाग्रहणमपि कर्तव्यम् । इहापि यथा स्यात्—श्राद्धाय विगर्हते । युद्धाय सन्नह्यते । पत्ये शेत इति । तत्तर्हि वक्तव्यम् । न वक्तव्यम् । कथम् । क्रियां हि नाम लोके कर्मेत्युपचरन्ति । कां क्रियां करिष्यसि । किं कर्म करिष्यसीति । एवमपि कर्तव्यम् । कृत्रिमाकृत्रिमयोः कृत्रिमे संप्रत्ययो भवति । क्रियापि कृत्रिमं कर्म । न सिद्ध्यति । कर्तुरीप्सिततमं कर्म (1, 4, 49) इत्युच्यते । कथं च नाम क्रियया क्रियेप्सिततमा स्यात् ।

10. See the L. S. Mañjūśā, p. 797.



क्रियापि क्रियेप्सिततमा भवति । कया क्रियया । सन्दर्शनक्रियया वा प्रार्थयतिक्रियया वाध्यवस्यतिक्रियया वा । इह य एष मनुष्यः प्रेक्षापूर्वकारी भवति स बुद्ध्या तावत्क-  
श्चिदर्थं संपश्यति । सन्दृष्टे प्रार्थना । प्रार्थनायामध्यवसायः । अध्यवसाय आरम्भः ।  
आरम्भे निर्वृत्तिः । निर्वृत्तौ फलावाप्तिः । एवं क्रियापि कृत्रिमं कर्म ।

Following Kātyāyana's definition Patañjali at another place says that there is no instance of the use of a second Tīhanta in a Samāna-vākya (in the same sentence). All this has been made very clear by Bhojadeva in his *Sṛṅgāraprakāśa*.<sup>11</sup> Bhartṛhari gives two other types of sentences in which Ekavākyatva has to be accepted for some technical purposes explained by him :

सम्बोधनपदं यच्च तत्क्रियाया विशेषकम् ।

व्रजानि देवदत्तेति निघातोऽत्र तथा सति ॥

(*Ibid.* 2.5.)

The commentator introduces this as follows :—

व्रजानि देवदत्तेत्यत्र देवदत्तेत्येतत्पदं नाव्ययं न च कारकं नापि तद्विशेषण-  
मिति वाक्यलक्षणेनासं गृहीतत्वादाष्टमिक आमन्त्रितस्य चेति निघातो न प्राप्नोतीति चोद्यम् ।

He proceeds to point out that if the meaning of Saviśeṣaṇa is widened a little so as to mean both Samānādhikaraṇa and Vyadhikaraṇa Viśeṣaṇas, this type of sentence can also be covered by the Vārttikakāra's definition ( आख्यातं साव्यय etc.). He then explains<sup>12</sup> how Devadatta is a Vyadhikaraṇaviśeṣaṇa of vrajāni and how the definition holds good in this case. There is of course nothing in this sentence to indicate that it came into vogue very late ; but the recognition of Ekavākyatva in it is post-Patañjalian. Neither Kātyāyana nor Patañjali intends to cover this. Patañjali while instancing the Vārttika आख्यातं साव्यय etc., does not refer to any sentence in which Kriyā is qualified by a Vyadhikaraṇaviśeṣaṇa. It is usual with later commentators to try to find support in the works of the Munitraya for everything they have to account for ; and in this endeavour they often misconstrue the texts ; but an impartial researcher has to get at the truth.

So far we have seen sentences consisting only of two verbs. In the following example we have three, the last one being qualified

11. Prakāśa 3, Adayar Library Transcript, Vol. I, p. 398 (No. 39. F. 2.)

12. P. 69.

temporally (Kālaviśeṣaṇaviśiṣṭa) by the preceding two. Bhartṛhari points out the analogy of Ktvāntas of which any number can be used in a sentence. In this type too, the recognition of Ekavākyatva is post-Patañjalian. According to Patañjali,<sup>13</sup> no Ekavākya consists of two or more verbs, with the exception of that of the type of Pacati bhavati. Says Hari in the Vākyapadīya :

यथानेकमपि क्त्वान्तं तिङन्तस्य विशेषकम् ।

तथा तिङन्तं तत्राहुस्तिङन्तस्य विशेषकम् ॥

2. 6.

E.g., पूर्वं स्नाति पचति ततो व्रजति ततः ।

The commentator adds :

नास्त्यत्र वाक्यभेदः । व्रजतीत्येतत्प्राधान्येनैकं क्रियापदमत्र स्थितम् ।

अन्यानि क्रियान्तराणि तद्विशेषणान्येव ॥

(p. 70.)

Though I have incidentally discussed all the types of Ekavākya, my basic intention here is to point out only the type of Pacati bhavati which could come into vogue in a spoken language alone.

13. Cf. न च समानवाक्ये द्वे तिङन्ते स्तः Mahābhāṣya on 8. 1. 28.



## GREEK AND SANSKRIT\*

*By* BATAKRISHNA GHOSH

Almost all that is noble and beautiful in European civilisation is derived from Greece, and to-day there is hardly a literate man on earth who has not imbibed, consciously or otherwise, something of Greek culture. The blooming period of this civilisation was short—only eighty years (400-320 B.C.) strictly speaking. But in those few years the Greeks traversed distances which more plodding peoples have taken centuries to cover. Dark age set in, when the wisdom and the arts of Greece were forgotten, and the Renaissance was little more than the rediscovery of those arts. It is by no means an accident that the language of the ancient Greeks is in many ways more modern than many modern languages.

The history of the Greek language falls into two parts divided by the age of Alexander the Great. The first part is the age of individual Greek dialects and the second part that of a common Greek language. Formerly it was believed that the forefathers of the Greeks had invaded and occupied Hellas in one wave, and that their language, homogenous in origin, split up later into various dialects such as Ionian, Dorian, Aeolian etc. This theory has, however, to be given up to-day. The earliest history of Greek rather begins with a bewildering number of dialects whose development was on the whole convergent till the age of Alexander, after which, however, their development was pronouncedly divergent, till a time came when there arose the necessity of artificially creating an idiom intelligible to the whole Greek world: this was the Koinē. Dialectical differences are much sharper in the older period, and the original homogeneous Greek idiom is no less a fiction than the original Indo-European. The history of the individual Greek tribes and Greek religion also points in the same direction. Here too the development has been from diversity towards unity. At the dawn of history the Greeks present the unenviable picture of small eternally warring tribes, sharply distinguished from one another in custom and religion, and wholly without any consciousness of national sentiment or solidarity. They had not even a name for all the Greek tribes together, for the words Hellas and Hellenes occurring in the *Ilias* are to be associated primarily with the southern tract of Thessaly.

The early history of the Greek dialects, as can be reconstructed from concrete historical evidence, turns out to be that of successive waves of inva-

\* Students who might care to read this paper are expected to have first read my "*Linguistic Introduction to Sanskrit*" ( *LIS.* ).

sion by various tribes which later came to be known as Greek. The last of those waves was that of the Dorians, not mentioned in the *Ilias* but only in the *Odysseus*. Along with the Dorians came also the north-west-Greek tribes settled later in Thessaly, middle Greece excepting Attica, and the Peloponnesus, as well as in Crete and other islands of the Aegian sea. The earlier tribes who were subjugated by these invaders were all together sometimes called Achaeans and sometimes Aeolians for want of an appropriate designation. As the Doric invaders gradually mingled with the subjected tribes their dialects too tended to lose their angularities, but the different components of the resultant mixed product remained protrudingly prominent in different local dialects. In Arcadia, for instance, the Aeolian dialect thrived in pure state because the Dorians did not invade the hilly tracts of this region. In other parts of the Peloponnesus, however, such as Akhaia, Argolis, Laconia, the Doric element even got the upper hand, but in Thessaly the Aeolic element remained stronger. The chief problem of the early history of the Greek language is to ascertain the distribution of the various dialects before the Doric invasion.

Beside Aeolian and Dorian we have in early Greece also Ionian (including Attic). Its historical relation with the Aeolian group has not been fully clarified. The Ionians moved into their seat in the Cyclades and Asia Minor, where they are known in the historical period, from Peloponnesus and Central Greece: this is supported by the Ionians' own tradition, and this also excellently suits the whole situation. Attica, which according to Solon was "the first-born country of Ionia," always remained in the hands of this tribe, and is for that reason called the mother-land of the Ionians.

The invading Greek tribes were rude barbarians. They destroyed the great Minoan-Mycenean civilisation. But the Greek barbarians had a sense for beauty and were quick to learn. They soon mastered the arts of the people they had subjugated and made them their own. But they did more. They made even in those early days a great discovery which later gave them their brilliant civilisation: they discovered that man can be isolated from the universe, and that it is not impossible therefore to make him the master thereof. Incidentally, they recognised none but themselves to be full-fledged human beings. Thus the Greeks set the tone of European civilisation for all time to come. Life to them was joyful existence. At a time when the Indians had realised that cessation of sorrow must be accepted as happiness, the Greeks boldly asserted that cessation of joy is sorrow. The Greeks were young still, and had not yet seen so much misery and frustrated chances of happiness as we have. They were not ashamed therefore of their own happiness and pursuit of joy. Yet they never lacked warm-hearted generosity. In all the earlier civilisations, including the civilisation of India, man had felt himself small and humble before the forces of nature, and the gods personifying those forces were to him mysterious and inscrutable. Not so however the Grecian gods. It is said that God made man in His own image, but in the case of the Greeks the

opposite would be more true : the Greeks imagined their gods as they were themselves. Such gods, naturally, could not be awe-inspiring. They were generally friendly forces, though by no means, all of them to every human being, for like ordinary mortals they too had their prides and prejudices and every human foible. "In regard to ordinary truthfulness, Hellenic religion has nothing to say, no message to give and Hellenic ethics very little. In the poetic story, Athena smiles on the audacious mendacities of Odysseus, and Hermes loves the liar Autolykos. Not that the religion consecrated mendacity, only it failed to consecrate truth" (Farnell).

Such were the early Greeks as depicted in the Homeric epics *Ilias* and *Odysseus* (circa 800 B.C.). They are heroic, not sacerdotal, and therefore should be compared rather with our *Mahābhārata* and *Rāmāyaṇa* than with the *Ṛgveda* and the *Atharvaveda*. It was still a far cry to the golden age of Athens, when the Athenians flushed with their victory over the invading Persians set themselves to the task of depriving their neighbours of the same freedom which they had so heroically defended for themselves. This effort led to the fall of Athens. But in the moment when Sparta triumphed over Athens, Athenian language and literature became pan-Hellenic. The fourth century B.C., politically a period of decline and disintegration, served to divest the Attic culture of its local and political character and made it universal. Alexander was the product of this pan-Hellenic culture. Athenian literature and language, however, is of no particular importance for linguistic studies. Much more important in this respect are the Homeric epics and the dialectical inscriptions of which there are thousands. But a few words must be said about the borrowed foreign elements in Greek language and culture.

It is a common characteristic of all the Indo-European tribes that, though uncivilised themselves, they could easily acclimatise themselves to the cultural atmosphere of the countries they conquered. Of higher culture they had little indeed, but some of their tribes after the final dispersal came in contact with peoples possessing high civilisations : these peoples they mostly destroyed, but the civilisation of the destroyed peoples passed on to the destroyers. This is true also of the Greek tribes, for when they arrived in Greece they found there a great civilisation flourishing, which for want of a better name is called Aegean. The chief centres of this civilisation were Mycenae and Crete. The Greeks themselves called the original inhabitants of the mainland and the islands of Greece Pelasgian, Lelegian, Karian etc., and Karian hymns were used in Greek cults even in later days.

Numerous inscriptions in non-Greek languages prove beyond every doubt the existence of an older civilisation in the Aegean world. Some of them are written in alphabets which are yet unknown and therefore cannot even be read. Such non-Greek inscriptions in Crete prove that the Eteocretans, mentioned in the *Odysseus*, were still living there in the fourth century B.C. The inscriptions definitely prove that the Eteocretans (i.e., Original Cretans) were

a pre-Indo-European race inhabiting not only Crete and the Aegean islands, but also the mainland of Greece. But the Eteocretans were not the only pre-Greek inhabitants of Greece. An inscription of the sixth century B.C. discovered in Lemnos shows remarkable similarities with Etruscan.

All this definitely proves that there was a vast substratum of pre-Greek language and culture on which was foisted at a later date the ruder civilisation of the early Greeks. The range of this pre-Greek culture extended from Asia Minor to Italy, including all the Aegean islands. Particularly interesting in this connection are the Greek words containing the sound group *-nth*, e.g. *labúrinthos*, *asáminthos*, *Kórinthos* etc. This sound-group is typically characteristic of the place-names of Asia Minor. Only a small portion of the Greek words may be traced back to I.-E. roots: this is because among the Greeks the original I.-E. vocabulary has been largely supplanted by loan-words from the higher Aegean culture.

Greek has thus been profoundly influenced by the non-Indo-European Aegean culture, with which it had no organic relation. But does it show any special relation with any I.-E. dialect? Sometimes it is claimed that Greek and Armenian are a pair of twins among the I.-E. dialects like Indic and Iranian or Italic and Celtic. But the grounds given are not very convincing. Greek, however, shows some striking linguistic innovations common with various other I.-E. dialects:—

1. Along with other I.-E. Centum languages Greek has retained the original palatals as occlusives, e.g. *he-katón* : Skt. *satám* etc. The original labio-velars too must have been retained intact in the earliest Greek, but in the historical period they developed either into labials or dentals; cf. *póte*, *tís* from I.-E. *kʷ*.
2. Along with Armenian and most of the I.-E. languages of Europe, Greek has retained original *e*, *o*, *a* distinct, whereas in Indo-Iranian they have coincided in *a*; e.g., Gk. *névos* : Skt. *náva*.
3. In Greek, Iranian and Balto-Slavic, original *d+t* or *t+t* becomes *st* through *tst*; cf. Gk. *á(v)istos* : Avestan *avistō* (root *vid-*). Skt. shows *tt* in these cases, and Italic, Celtic and Germanic show *ss*. Thus Skt. *sattá*, Avestan *hasta*, Lat. *ob-sessus*.
4. I.-E. nasal sonants *ṇ ṇ* appear in Greek and Indo-Iranian as *am an* before a vowel and as *a* before a consonant, but in Italic they appear as *em en*, in Germanic as *um un*, in Baltic as *im in*, and in Slavic as *ę*.
5. The augment is known only in Indo-Iranian, Greek, Phrygian and Armenian, and perhaps also in Germanic. Thus Gr. *é-lipe*, Skt. *á-ricat*, Arm. *e-lik'*. As for the other dialects, it is more probable that the augment never existed in them at all than that it was lost in them before the historical period.

This is about all that can be said in support of the view that Greek has any special affinity with any other I.-E. dialect. For the history of the Greek language it is much more important to ascertain the distinguishing features of the chief early dialects, all of which have contributed to the constitution

of the immortal language in which the wisdom of Greece has been transmitted down the ages. Greek dialectical literature is not inconsiderable, for Herodotus, the father of history, wrote in Ionian, and Sappho, the tenth Muse, along with Alkaios, represents the Aeolian literature. Yet, for linguistic purposes, contemporary inscriptions are always preferable to literature, for literary language could not but be tampered with in course of transmission. Of such inscriptions there is no dearth in Greece, and the most famous of them all is the inscription of Gortys in Crete, composed in a Doric dialect of the fourth century B.C., in which the whole administrative system of the city of Gortys has been described. We shall here briefly enumerate the main distinguishing features of the chief early dialects :—

1. *Doric* is characterised by the following peculiarities : (a) Retention of original Greek  $\bar{a}$ ; (b) *ia* is retained and not changed into *ie* as in Attic, cf. *hiarós*; (c) contraction of  $\bar{a}+o$  and  $\bar{a}+\bar{o}$  into  $\bar{a}$ , and that of  $a+e$  into  $\bar{e}$ ; (d) retention of *t* before *i* in a large measure, e.g. *légonti*, *tithēti*; (e) the numerals *tétores*, *vikati*, *prātos* (for *prōtos*); (f) the loc. sg. in *-ei* perceived in many adverbs; (g) the ending of 1. pers. pl. in *-mes*; (h) the Doric future (forms in *-séō*, e.g. *peséomai* "I shall fall"); (i) Future and Aorist in *-xō* and *-xa* of non-guttural stems; (j) Passive future with active endings; (k) Infinitives of athematic verbs in *-men*.

2. *Achaean*. (a) Mutation of *a* into *o* before or after *r*; (b) *ón=aná*; (c) mutation of *o* into *u* in certain cases; (d) *-ti* becomes *-si*; (e) athematic flexion of contracted verbs.

But Achaean is again divided into the two important sub-dialects (i) Arcado-Cyprian, of which the chief common characteristic is that in it the I.-E. labio-velars are usually changed into dentals before palatal vowels, e.g. Arc. *dellō* for *bállō*, and (ii) Lesbo-Aeolian, of which the chief common characteristics are that in them I.-E. labio-velars appear as labials even before palatal vowels, and that the dative plural of the third declension takes the ending *-essi*. Many peculiarities of the Aeolian dialect are conspicuous in the Homeric language.

3. *Ionic-Attic*. This group is characterised chiefly by the mutation of  $\bar{a}$  into  $\bar{e}$  and of *u* into  $\bar{u}$ . As further characteristics of this group may be mentioned : (a) the quantitative metathesis of  $\bar{e}o$  into  $e\bar{o}$ , (b) very early disappearance of Digamma, (c) extensive use of the *n ephelkoustikón*, (d) substitution of the suffix *-tēs* for *-tēr* *-tōr* in the living language; (e) Psilosis is a prominent characteristic of Asiatic Ionian.

Attic is again differentiated from Ionian by several peculiarities, the chief of which are : (a) retention of the primitive Greek long  $\bar{a}$  after *e*, *i*, *r*; (b) mutation of original *ss* into *tt*; (c) mutation of original *rs* into *rr*.

We are now perhaps in a position to understand the complexities of the Homeric language, which is on the whole the oldest form of Greek known to



us. But it has to be borne in mind that it is essentially an artificial dialect, and that each and every peculiarity of the Homeric dialect need not have been a feature of primitive Greek. In its present form the Homeric epic is considered to be a later Ionian recast of an original Aeolic poem. But numerous characteristically Aeolic forms have been retained in the Homeric language, particularly in those places where the corresponding non-Aeolic forms would not fit into the metre. It has to be remembered, however, that the earliest rhapsodists used to *sing* the poems which pieced together later became the Homeric epics to the accompaniment of the lyre played by themselves. Mutual accommodation is not only possible but almost inevitable when the singer and the player are one and the same person : Homeric metre is therefore not so rigid as the iambus of later ages when the flute had taken the place of the lyre and therefore could not be played by the rhapsodist himself. Metrical lengthening is as much in evidence in the Homeric language as in the R̥gveda.—The chief Aeolic features of the Homeric language are the following :—

1. *u* instead of *o*, as in *águris* "assembly" for *agorá*.
2. *or* and *ro* for *ar* and *ra* ; thus *ēmbroton* (aor. from *hamartánō*) ; *órkhamos* "ruler" : *árkhō* "I rule."
3. Homeric *ā* in place of Ionian *ē* should be regarded as an Aeolism ; cf. *Atreidāo*, *lāōs* etc.
4. *za-* for *dia-* ; cf. *zátheos* "very godly."
5. Gemination of consonants as the result of the shifting of the boundary of syllables is one of the most important Aeolic features of the Homeric language. Thus *-mm-*, *-nn-* out of *\*sm*, *\*sn*, e.g. *ámme*, *ímme*, *argennós* "white" from *\*arges-nos*.
6. Labials for I.-E. labio-velars where usually dentals would be expected in Greek ; e.g. *písures* : Att. *téttares* (I.-E. *\*k<sup>w</sup>et-*).
7. Nominatives of masculines of the first declension in *-a* (instead of *-as*) ; e.g. *eurúopa* "far-sighted."
8. Dative plural of the third declension in *-essi*.
9. Infinitives in *-menai*.
10. The numeral *ia* for *mía*, and the particle *ke(n)*.

With the rough idea of the dialects and the Homeric language we have thus acquired, let us now try to understand the structure of the Greek language as a whole.

In the field of phonology, perhaps the most important fact to note is that Greek is the only I.-E. language in which the three original normal vowels (*e*, *o*, *a*) have been kept distinct. Without the help of Greek it could hardly have been possible to reconstruct the I.-E. vowel-system. Cf. Gr. *phér-ō*, Lat. *fer-o*, Skt. *bhár-ā-mi* : I.-E. *\*bher-* ; Gr. *es-tí*, Lat. *est*, Skt. *ás-ti*. In some Greek dialects, however, *e* became an open sound almost approaching *a*, particularly in the neighbourhood of *r*, thus giving rise to forms like *patára* for *patéra*. But this is rather due to the inherent character of the sound *r* itself, which

in the same way sometimes "breaks up" the preceding vowel also in other languages into two ( $a > oa$  etc.). I.-E.  $\bar{e}$  (Skt.  $\bar{a}$ ) too has remained unchanged in Greek (cf. I.-E. \* $m\bar{e}$ , Gr.  $m\bar{e}$ , Skt.  $m\bar{a}$ ), but within this language it has had a chequered history. In Ionic-Attic the  $\bar{e}$  derived from I.-E.  $\bar{e}$  was a closed sound, and about the beginning of the Christian era it everywhere became  $\bar{i}$ . In some other dialects, however, this sound became so open that it could be represented by  $a$ .—I.-E.  $o$  remained unchanged; cf. I.-E. \* $o\tilde{k}tou$ : Gr.  $okt\bar{o}$ , Skt.  $aṣṭau$ ; I.-E. \* $to-d$ : Gr.  $t\bar{o}$ , Skt.  $t\bar{a}d$ . Similarly I.-E.  $\bar{o}$ ; cf. Gr.  $di-d\bar{o}-mi$ : Skt.  $d\bar{a}-d\bar{a}-mi$  (from I.-E. \* $d\bar{o}$ ). In some dialects, however,  $\bar{o}$  became a closed sound and approached  $\bar{u}$ .—The third normal vowel  $a$  too remained unchanged in Gr., cf. I.-E. \* $a\tilde{g}ros$ , Gr.  $agr\bar{o}s$ , Skt.  $\acute{a}pras$ ; but its long form  $\bar{a}$  became  $\bar{e}$  in Ionic-Attic; thus I.-E. \* $m\bar{a}t\bar{e}r$ , Skt.  $m\bar{a}t\bar{a}$ , Doric  $m\bar{a}t\bar{e}r$ , but Ionic-Attic  $m\bar{e}t\bar{e}r$ . The Ionic-Attic  $\bar{e}$  derived from I.-E.  $\bar{a}$  was a very open sound and thus sharply distinguished from the  $\bar{e}$  derived from I.-E.  $\bar{e}$ , and in early inscriptions two different signs were used for these two sounds. In Attic the distinction between the two was obliterated already in the fifth century B.C., though however only the  $\bar{e}$  derived from  $\bar{a}$  reverted in this dialect to the original  $\bar{a}$  after  $r$ ,  $i$  and  $e$ ; thus Attic  $kh\bar{o}r\bar{a}$ ,  $i\bar{a}somai$ ,  $gene\bar{a}$ . This reversion of  $\bar{e}$  to  $\bar{a}$  in these positions in Attic did not take place at one and the same time. The reversion of  $r\bar{e}$  to  $r\bar{a}$  took place first; then came the reversion of  $e\bar{e}$ ,  $i\bar{e}$  to  $e\bar{a}$ ,  $i\bar{a}$ . Attic  $k\bar{o}r\bar{e}$  is derived from  $k\bar{o}r\bar{a}$ ; this shows that the Digamma disappeared from this dialect *after* the reversion of  $\bar{e}$  to  $\bar{a}$ .—The I.-E. neutral vowel  $\bar{a}$  appears usually as  $\bar{a}$ , as also in Latin, Gothic etc. But  $\bar{a}$  alternating with  $\bar{e}$  and  $\bar{o}$  appears as  $\bar{e}$  and  $\bar{o}$  respectively in Greek. Thus  $\bar{a} > \bar{e}$ :  $e-st\bar{a}-th\bar{e}n$  from  $hi-st\bar{a}-mi$  (Doric);  $\bar{a} > \bar{o}$ :  $e-d\bar{o}-th\bar{e}n$  from  $di-d\bar{o}-mi$ ;  $\bar{a} > \bar{e}$ :  $e-t\bar{e}-th\bar{e}n$  from  $ti-th\bar{e}-mi$  (see LIS., p. 31).

The extreme vowels  $i$ ,  $u$  (i.e. the weak-grade forms of  $i$ -diphthongs and  $u$ -diphthongs) remained unchanged in primitive Greek; cf. I.-E. \* $i-dhi$ , Gr.  $\acute{i}thi$ , Skt.  $ih\bar{i}$ , and I.-E. \* $\acute{k}lutos$ , Gr.  $klut\bar{o}s$ , Skt.  $\acute{s}rut\bar{a}h$ . In Attic however I.-E.  $u$  became  $\bar{u}$  at an early date; similarly I.-E.  $\bar{u}$ . In order to represent the sound  $u$  the Greeks therefore began to use the diphthong  $ou$  which in pronunciation had early become  $u^*$ . It is a difficult problem of Greek phonology to decide where the  $ou$  is historical and where it is merely a later representative of  $u$ . But even when  $ou$  was not used to express the sound  $u$  it was not always a diphthong. Where the  $ou$  is derived from I.-E.  $ou$  as in  $lou\bar{s}son < *lou\bar{k}ion$  it was certainly pronounced as a diphthong originally. But there was also an unguine  $ou$  which was never pronounced as a diphthong, e.g. the result of the contraction of  $o + o$ ,  $o + e$  or  $e + o$ . The  $o$  lengthened in compensation is another source of this unguine  $ou$ , e.g.  $to\bar{u}s$  from  $tons$ . The diphthong  $ei$

\* Cf French  $u = \bar{u}$  and  $ou = u$ . In diphthongs like  $eu$   $au$  however the  $u$  did not become  $\bar{u}$ ,

deserves special mention for a similar reason. Besides the *ei* derived from the original Indo-European (e.g. Gr. *ēi-si* : Skt. *ē-ti*) there was another originated within Greek which was also genuinely diphthongal, e.g. *eī* "you are" from \**esi*, *gēneī* from \**ġenesi*. The genuine diphthong *ei* from both these sources early became a closed *ē* in Ionic-Attic. But there was, besides, an unguenuine *ei*, always pronounced *ē*, originated through the contraction of *e+e* or through compensatory lengthening. When the genuine diphthong *ei* became *ē* in pronunciation, *ei* began to be written also for the sound *ē*. This is the origin of the unguenuine diphthong *ei*, and this is how the Greeks came to write, e.g., *eīnai* for *ēnai* <\**esnai* and *eisi* for \**enti* <\**senti*.—I.-E. long *i*-diphthongs can still be detected in Greek by means of the iota-subscriptum as in *lūkōi* (<\**u(h<sup>w</sup>ōi)*), Doric *nikāi*; the Greeks, however, represented I.-E. *ēi* not only by the long *ē* with iota-subscriptum but also simply by *ei*. The subscripted iota had become mute at a very early date as is proved by numerous cases of *inverse writing* in which the iota served only to indicate the length of the coefficient. As for long *u*-diphthongs, it is to be noted that they became short before a consonant, e.g. I.-E. \**dġeu-s* but Gr. *Zeús* (for \**Zēus*); similarly *boŭ-s* instead of \**bōu-s* from I.-E. \**g<sup>w</sup>ōu-s*.

Of the semi-vowels, the nasal ones (*ŋ* *ṃ*) have normally developed into *a* in Greek as in Sanskrit; cf. I.-E. \**tŋtos* : Gr. *tatós* : Skt. *taṭāḥ*, and I.-E. \**deḡm* : Gr. *dēka* : Skt. *dāśa*. The liquids *ɾ* *l* have, however, seemingly developed an *a* in Greek, sometimes following and sometimes preceding. Thus I.-E. *ɾ* becomes *ar* or *ra* and I.-E. *l* develops into *al* or *la* in Greek : as *ɾ* *l* are nothing but the weak-grade forms of I.-E. *er/re* and *el/le*, these Greek sounds (*ar*, *ra* and *al*, *la*) would suggest that even in the nil-grade the vowel in I.-E. *er/re* and *el/le* had not been completely destroyed. In fact, Gr. *ar* *al* are to be derived directly from an intermediate grade between I.-E. *er* and *ɾ* resp. *el* and *l*, and Gr. *ra* *la* perhaps from an intermediate grade between I.-E. *re* and *ɾ* resp. *le* and *l*. The double representation of I.-E. *ɾ* *l* in Greek is therefore of great importance for Indo-European linguistics, for they show that there was a definitely articulate intermediate grade even of light bases. Examples :—I.-E. \**dhɾs-* : Gr. *thrasús* (*tharsús*) : Skt. *dhɾs-*; I.-E. \**pl(h)-* : Gr. *platús* : Skt. *pṛthú*; I.-E. \**mġdu-* : Gr. *a-mald-ú-nō* : Skt. *mɾdú*.—I.-E. *ŋ* *ṃ* have normally developed into *nā mā* in Greek (*ā* in Skt.). Thus I.-E. \**dh<sup>u</sup>ŋtos* > Gr. *thnātós* (Doric) : Skt. *dhvāntāḥ* (with an analogical *n*) and I.-E. \**de-d<sup>u</sup>ṃ-menos* > Gr. *de-dmē-ménos* (Attic). I.-E. *ɾ l* developed into *rō lō*, e.g. I.-E. \**stġtos* > Gr. *strótós* (cf. Skt. *stīrnāḥ*); I.-E. \**mġdhros* > \**mlōthros* > Gr. *blōthrós* (cf. Skt. *mūrdh-án*).

I.-E. *ɿ* *ʷ* have had quite a chequered life in Greek. Initial *ɿ* appears in Greek as *h* or *z*; cf. Gr. *hós* : Skt. *yáḥ* and Gr. *zugón* : Skt. *yugám*. Not

even a conjecture can be made as to the cause of this striking differentiation of the same sound in Greek, for the older theory which ascribed this differentiation to difference in pronunciation in the original Indo-European has no solid basis. Between vowels of the same word, I.-E. *ɪ* completely disappeared already in primitive Greek; thus Gr. *trees* (Cretan; Attic *treîs* is a case of unguenuine diphthong): Skt. *tráyah*. I.-E. *ʷ* (digamma) on the other hand was retained in Greek till late into historical times, but in Ionic-Attic it disappeared at quite an early date. The digamma was in full bloom in the Homeric language, though in the Attic version of the epics that has come down to us its existence can be detected only from the indication of the metre. On the whole, initial digamma disappeared later than the digamma in medial position, and at least in one dialect, namely that of Tsaconia, it is still persisting.—Of I.-E. consonantal nasals it should be noted that in final position *m* became *n* in Greek, cf. Gr. *tón* : Skt. *tám*.—Of Indo-European spirants, the dental ones deserve special mention. Initially before vowel *s* became *h*; Gr. *heptá* : Skt. *saptá*. Between vowels of the same word *s* disappeared completely (forms like *élusa* are due to the analogical influence of *égrapsa* etc.); cf. I.-E. *\*ǵenesos* : Skt. *jánasaḥ* : Gr. *généos* (Ion.). There is no doubt that before disappearing completely, here too, the *s* had at first become *h*; but if this *h* stood at the beginning of the second syllable it was shifted to absolute initial. Thus I.-E. *\*eusō* (Skt. *ósati*) at first became *\*euhō* in Greek, and then further changed to *heutō*.—There was in the original Indo-European a surd dental spirant (*ʃ*), something midway between *t* and *s*; it has developed into *t* in Greek but *s* in Sanskrit. Thus I.-E. *\*k̑̑i-* : Gr. *ktîsis* : Skt. *kyitlî*. The sonant counterpart of this surd spirant was *dh*; it has developed into *th* in Greek but *s* in Sanskrit. Thus I.-E. *\*ǵdhem-* : Gr. *khthôn* (extended-grade form): Skt. *kṣam-*. The sign for the sonant dental spirant (*z*) was used to indicate the sound *zd*; thus *Athénaze* = *\*Athēna(n)z-de* < *\*Athēna(n)s-de*. In combination with I.-E. *dh*, which became *th* in Greek, the I.-E. *z* became *s*; thus I.-E. *mizdho-* : Gr. *misthós* : Skt. *mīḍhām*.

Lastly we shall discuss the story of Indo-European occlusives in Greek, and the first thing to note in this connection is that I.-E. sonant aspirates had become surd aspirates already in primitive Greek; pure sonants however remained unchanged. Thus I.-E. *\*dhūmos* : Gr. *thūmós* : Skt. *dhūmāḥ*; I.-E. *\*bherō* : Gr. *phérō* : Skt. *bhārā(mi)*.—I.-E. palatals were not spirantised in Centum-languages and so we find them as occlusives in Greek; e.g. I.-E. *\*k̑̑lutos* : Gr. *klutós* : Skt. *śrutāḥ*, I.-E. *\*sk̑̑hid-* : Gr. *skhizō* : Skt. *chid-*; from I.-E. *\*uǵ̑̑h-* (*o*-grade form of root *\*uǵ̑̑h-*) is derived Gr. *ókhos*, and from the *e*-grade of the same root come Skt. *váhati* and Avestan *vazaiti*.—The history of I.-E. labio-velars is much more complicated in Greek. Apart from the Aeolic dialects, they developed into pure labials before *a o*, but into pure dentals before the sounds *e* and *i*; before and after the sound *u* however the labial element was

completely lost and they became pure gutturals. Thus I.-E. \**kʷo*-: Gr. *pó-then*, Skt. *káh*; I.-E. \**kʷis*: Gr. *tis*; I.-E. \**penkʷe*: Gr. *pénte*: Skt. *pāñca*. Mutation of \**kʷ* into *k* in the neighbourhood of the sound *u* is strikingly proved by the word *bou-kólos* as contrasted with *a(v)i-pólos* or *hippo-pólos* from I.-E. \**kʷol*-. In the case of the labio-velar sonant aspirate we have further to take into consideration the fact of its change into the corresponding surd; thus I.-E. *gʷh* has developed into *ph*, *th* or *kh* in Gr. Cf. I.-E. \**gʷhen*-: Gr. *phónos*: Skt. *(g)han*-; I.-E. \**gʷher*-: Gr. *théros*: Skt. *(g)hāras*; I.-E. \**ʷegʷh*-: Gr. *eúkh-e-tai*: Skt. *óh-ate*. The unaspirated sonant labio-velar has in the same way developed into *b*, *d*, *g*. Thus from I.-E. \**gʷem*-: \**gʷm*- is derived \**bam̥ō* > *bainō* in Greek; I.-E. \**gʷōus*: Gr. *boūs*: Skt. *gāiḥ*; \**gʷelbh*-: Gr. *(a)delphós*: Skt. *gārbhah*; Gr. *hugiēs* is to be derived from I.-E. \**su-gʷil-ēs*.—As for pure velars, they have on the whole been retained unchanged in Greek—excepting the necessary mutation of *gh* into *kh*. Cf. I.-E. \**greuges*: Gr. *kré(v)as*: Skt. *kraviḥ*; I.-E. \**m(e)igh*-: Gr. *o-míkhlē*: Skt. *meghāh*.

It is necessary to note however that in the Aeolic dialects the labio-velars appear as labials also before the palatal vowels *e*, *i*. Thus I.-E. \**kʷetʷr*- has developed into Att. *téttares* but Boeot. *péttares* and Lesb. *pésures*. Homeric *pisures* is a case of Aeolism.

We shall now briefly discuss some of the most striking combinatory sound-changes in Greek, of which the most important are perhaps those in connection with *i* and *ɿ*. Thus, excepting in Doric, *ti* > *si*; cf. Gr. *títhēsi*: Skt. *dádhati*; but Doric *títhēti*. As in many other languages, so in Greek too, the nasal had a tendency to disappear before spirants. Hence I.-E. \**bheronti*, Skt. *bhāraṇti* but Greek *phérousi* < \**phéronsi* (Doric *phéronti*). As the sound *u* had been early palatalised in Greek as is clearly attested by writings like *-iou-* for *-u-*, it also succeeded in spirantising preceding *t*; I.-E. \**tu* became *sú* in Greek. This palatalisation of *u* is also responsible for the fact that every initial *u* has the spiritus asper in Greek: as *v* became *ɿu*, its *ɿ* phonologically became *h* as in *hós*=Skt. *yáh*. To explain the spiritus asper of every initial *r* in Greek we shall have to start with words beginning with *sr* which phonologically became *rh*; cf. Gr. *rhéō*: Skt. *sṛavati*. The spiritus asper was then extended to every initial *r* at least in writing, for it is not sure that the sp. asp. without etymological justification was a reality in pronunciation. The influence of *ɿ* on preceding consonants was on the whole like that in Middle-Indo-Aryan languages. Thus I.-E. \**alhos* > Gr. *állos*. But this gemination was accompanied by a curious change of place of articulation in the case of gutturals of all the three series: immediately followed by *ɿ* they all became *tt* in Attic (and *ss* in Ionic). Thus \**paḱḱalos* (connected with Skt. *pāś-*) became *páttalos* in Attic (Ion. *pássalos*). In the same way, Attic *péttō*, Ion. *péssō* from \**pekʷɿō* (Skt. *pácati*). But the three unaspirated sonant gutturals seem to have disappeared in primitive Greek before *ɿ*, and this *ɿ* then appears as *z* in

Ionic-Attic, just as simple *l* appears as *z* in *zugón* : Skt. *yugám*. Thus from I.-E. \**meǵ-* (a side-form of \**meǵh-*) is derived Ion. *mézōn* (Att. *meizōn*) < \**meǵ-īōn*. Like *ǵl* also *dl* developed into *z*; thus \**dīēus* > *Zeús*. That here too the *z* was pronounced *zd* is clearly proved by orthographic forms like *Sdeus* for *Zeús*. Dentals followed by *l* gave rise to *ss* (also written *s*). Thus Hom. *tóssos* < \**totīos* (Skt. *tāti*); I.-E. \**medhīos* : Skt. *mādhyah* : Hom. *méssos*, Att. *mésos*. But when *l* immediately followed a liquid other than *l*, the result normally was the birth of new diphthongs through epenthesis. This *i*-epenthesis in an important feature of Greek phonology. Cf. *bainō* < \**banīō* < \**bamīō* < I.-E. \**gʷmīō*; *teinō* < \**tenīō* : Skt. *tan-*; *spairō* < \**sparīō* < I.-E. \**sprīrīō* : Skt. *sphurāti*. When *l* was preceded by *u* it is doubtful whether this epenthesis took place before the *u* was dropped; thus *hēdeĩa* (: Skt. *svādūṭ*) may be derived both from \**suādeuīā* or \**suādeīuā*. Similarly *eureĩa* (: Skt. *urōṭ*) from \**eureuīā* or \**eureīuā*.—Let us now mention some of the combinations of *u* which are equally interesting. Initial *tu* everywhere became *s* < *ss*; cf. Skt. *tvāc* : Gr. *sákos* (< \**ssakos*, cf. *pheressakēs*). Medially it became *tt* in Attic but elsewhere *ss*. Thus I.-E. \**kʷetures* : Att. *téttares*, Ion. *téssares*. I.-E. *kʷu* became *pp* in Greek; cf. *hippos* : Skt. *ásvaḥ*. Initial *su* became *h* in Greek; cf. Gr. *hēdūs* (Doric *hādūs*): Skt. *svādūḥ*; I.-E. \**syekuros* : Gr. *hēkuros* (Skt. *śvāsuraḥ* through assimilation).

In word-formation Greek has retained many I.-E. suffixes but added more of its own. Radical nouns are as much in evidence in Greek as in Sanskrit (see Linguistic Introduction to Sanskrit, p. 92). Suffix-built forms are ruled by the law of accent as in Sanskrit : in the case of the suffix *-o*, for instance, the agent-nouns regularly take the accent on the last syllable and the action-nouns on the first, though however, disturbances of the rule, analogical or otherwise, are not rare. Cf. Gr. *lúkos* : Skt. *vṛkḥaḥ*, Gr. *zugón* : Skt. *yugám*, Gr. *né(v)os* : Skt. *návaḥ*, Gr. *hénos* : Skt. *sánaḥ*. The feminine form *-ā* of this suffix has mostly become *ē* in Attic, but cf. Boeotian *bandā* : Skt. *gnā*.—The suffix *-io* (fem. *-iā*) is of Indo-European antiquity; Gr. *mésos* : Skt. *mādhyah* from \**medhīos*; Gr. *hágios* : Skt. *yágyah*. It was used in Greek quite extensively to form denominative adjectives, cf. Gr. *hippios* : Skt. *ásviyah* etc. The feminine suffix *-iā* (< I.-E. *iā*) corresponds to Skt. *-ī* (alternating with *-yā*); cf. Gr. *pótniā* : Skt. *pātnī*, Gr. *téktainā* (< \**tektanīā* through epenthesis) : Skt. *takṣṇī*. Similarly Gr. *dóteirā* : Skt. *dātrī*, Gr. *phérousā* < \**pheronīā* : Skt. *bhārantī*, Gr. *pleirā* < \**piuerīā* : Skt. *pīvarī* etc.—The suffix *-u* is one of the oldest I.-E. primary suffixes, and it is clearly preserved in Greek, cf. Gr. *pēkhus* : Skt. *bāhūḥ*, Gr. *gēnus* : Skt. *hānuḥ*, Gr. *elakhūs* : Skt. *laghūḥ* etc.—The ancient neutral *en*-stems have gone over to *t*-declension along with stems in *.nen* and *-men*; cf. nom. sg. *karā* < \**karasṇ*, gen. *krátos* < \**krasṇtos* : Skt. *śīrśán*, *śīrśatāḥ*.

Similarly *peirata* < \**perata* : Skt. *parvan-*, Gr. *eidata* < \**eduata* : Skt. *advan-*. As for the neuter-suffix *-mā* (< \*I.-E. *-m̥*), cf. Gr. *ónoma* : Skt. *nāma*, Gr. *kheūma* : Skt. *hōma*, Gr. *heīma* : Skt. *vāsma* etc.—The old primary suffix *-no* is clearly in evidence in Greek ; cf. Gr. *hūpnos* : Skt. *svāpnah*, Gr. *hagnós* : Skt. *yajñāh* etc.—The suffixes *-er* or *-or* and *-ter* or *-tor* were used from the earliest times to form agent-nouns and terms of relationship ; cf. Gr. *anēr* : Skt. *nar-*, Gr. *dotēr* : Skt. *dātar-*, Gr. *patēr* : Skt. *pitar-*.

As in Sanskrit, so in Greek too, the agent-suffix *-ter* has at its side an instrumental-suffix *-tro* ; thus agent-noun *arotēr* : instrumental-noun *arotron* (see, I.I.S., p. 103). Extended by *o*, this agent-suffix became the comparative-suffix *-tero* (Skt. *-tara*) and practically drove out of the field the older suffix *-er(o)* serving a similar, if not the same purpose (cf. Gr. *hūperos* : Skt. *ūparah*). The corresponding superlative suffix *-tatos*, is a Greek innovation. From *tētra-tos*, *ēna-tos*, *dēka-tos* etc. was at first abstracted a suffix *-atos*, cf. Hom. *trit-atos* : *tritos* ; and from forms like *tritatos* was further abstracted the suffix *-tatos*. For the superlative suffix *-isto* see I.I.S., pp. 104-5.—The suffix *-ti* was almost as productive in Greek as in Skt. ; cf. Gr. *dosis* : Skt. *dātiḥ*, Gr. *stasis* : Skt. *sthitiḥ*, Gr. *pūstis* : Skt. *buddhiḥ* etc.—The suffix *-yos* of perfect participle has been retained in its pure form in Greek without the analogical nasal (I.I.S. p. 99). In feminine this suffix assumes the form *-eīa* (< \**-yesīā*) to which corresponds *-uṣī* in Sanskrit ; cf. Gk. *ge-gon-eīa*, Skt. *ja-gm-uṣī*.

In noun-inflection, instead of the ending *-s* in nom. sg. masc. the stem itself is usually extended as in Skt. if ending in *-n*, *-r* or *-s* ; thus *téktōn* (Skt. *takṣā*), *patēr* (Skt. *pitā*), *dusmenēs* (Skt. *dūrmanāḥ*). The shifting forward of the accent in vocative is a characteristic not only of Sanskrit but also of Greek ; cf. nom. *Zeú* : voc. *Zeῦ* (i.e. *Zēu*).—The ending *-m* in acc. sg. phonologically becomes *-a* when coming after athematic stems (e.g. \**podm̥* > *pod-a*), though in other languages the stem itself is usually thematised before this consonantal ending (cf. Skt. *pad-ām*). Similarly Hom. *nēa* < \**naum̥*, but Skt. *nāv-am*, Lat. *nāv-em*. As in Sanskrit, neuter stems, excepting those in *-o*, take no ending in nom.-acc. sg. ; cf. Gr. *méthu* : Skt. *mádhu* ; Gr. *ónoma* < \**ōno-m̥* : Skt. *nāma* < \**nām̥*.—From the Indo-European epoch, *o*-stems had one form in *-ō* and another in *-ē* in instr. sg. (cf. Lat. *quō*, *benē*, Skt. *vṛkā*) ; the *ā*-stems moreover had a form in *-ā* (cf. Skt. *doṣā*). All these there forms are clearly perceptible in Greek ; thus *pō-pote* shows the instrumental in *-ō*, but the dialectical form *pē-poka* (Iac.) of the same word has the instrumental ending *-ē*. As for the instrumental singular in *-ā* of *ā*-stems, cf. Dor. *kruphā*.—The Indo-European dative-suffix *-ai* in singular is still preserved in the infinitive forms *khamai*, *dómenai* etc. (cf. the ending *-e* in Skt. *pitré*). Besides this *-ai*, another dative-ending *-ei* is guaranteed not only by Hom. *diē-philos*, Cypr. *diveiphilos* but also by Oscan *diuēi*. When joined to stems in *-o* or *-ā*, the ending *ai* became *-ōi* or *-āi* as in Gr. *hippōi*, *khōrai*.—Only *o*-stems

in the original Indo-European had a special form in abl. sg., and that in *-ōd* or *-ēd*; cf. Old Lat. *Gnaivōd*, *facilumēd*. Of these two, there is no trace of *-ēd* in Greek, but *-ōd* is preserved in several frozen adverbial forms and Delph. *voikō* < \**voikōd*.—Two distinct suffixes *-(o)s* and *-(s)jo* were used in gen. sg. in the original Indo-European. For *-os* cf. Gr. *kunós*; Skt. *śūnah*. Simple *-s* as genitive-suffix is in evidence in *des-pótēs* < \**dems-* (Skt. *dām-pati*). The ending *-sjo* is well attested in Hom. *hippoio*; Skt. *śvasya*, etc. In Homer the ending *-ou* is about as frequent as *-oio*. But a third ending *-oo*, though not clearly recorded, has to be accepted in view of various indications of prosody. This *-oo* < *-oso* is also of Indo-European origin, cf. O. Ch. Sl. *če-so*, Goth. *þis* < \**þe-so*. The ending *-ou* is considered to be the contracted form of this *-oo*.—From the earliest times the loc. could be either suffixless or suffix-formed according as it was adverbial or not (see LIS., pp. 125-6). The loc. ending *-i* is still clearly in evidence in the Hom. *pólēi* < \**polēv-i*; this form also suggests that the loc. ending *-au* of *i*-stems which is regarded as an Indo-Iranian innovation might have been of Indo-European antiquity (but see LIS. p. 44).—The dual number was never on the same footing as singular and plural even in the original Indo-European: it was resorted to only in the case of things which go by pairs such as eyes, hands etc. Yet even in the case of such objects, the dual number was by no means consistently used and in the Homeric language metre rather than grammatical considerations seems to have determined to use of the dual number. Greek dual endings are difficult to reconcile with those of other Indo-European languages.—In plural, the endings in accusative deserve special consideration. The I.-E. ending *-ῃs* (> *as* in post-consonantal position) in masc. and fem. is clearly in evidence in Cretan forms such as *tóns*, *táns* etc. The nasalless accusative-ending *-as* in plural is also preserved in Greek; cf. Gr. *kúnas*; Skt. *śūnah*. The neuter plural-ending *-ā* in accusative agrees perfectly with the corresponding *-i* in Skt. (see LIS. pp. 120-1); thus Gr. *phéronta*; Skt. *bháranti*, Gr. *téttara*; Skt. *catvāri*. This ending *-ā* is found also after neuter stems in *-i* and *-u*; cf. *tria*, *dákrua* corresponding to Skt. *trī*, *purī* etc. (LIS. p. 122). This *-iā* *-uā* may be phonologically derived from I.-E. *-iə* *-uə* (cf. Gr. *pótniā*; Skt. *pātnī*); but the final *ā* may also be due to mechanical transfer from post-consonantal position as in *téttar-a*; Skt. *catvār-i*.—As example of I.-E. instrumental plural may be mentioned the dative form *líkois* (: Skt. *vṛkaiḥ*). The alternative dative form *líkoisi* is however an Indo-European locative plural (see LIS., pp. 117-8). The Indo-European plural ending *-ōm* in genitive (cf. Skt. *devām*, Lat. *deum*) has phonologically become *-ōn* in Greek; cf. Gk. *kunōn*; Skt. *śundām* etc.—The Homeric ending *-phī(n)* functioning in all the cases excepting nominative and accusative is to be connected



with the *bh*-endings of Sanskrit (LIS., pp. 16-7). In Greek this ending may be used also in singular,—which is however not the case in Sanskrit.

We shall begin our brief survey of the Greek verbal system with the augment, about which the essential things have been discussed already in LIS., pp. 141-2. Specifically for Greek it is necessary to note that on account of the disappearance of initial *s*, *z*, *ʒ*, *sz* and *sz* of the verb the augment often comes in contact with a secondary initial vowel : contraction of the augment with these secondary initial vowels is often irregular. But the contraction is regular where the verb-form following the augment had for its initial a vowel from the beginning : thus Gr. *ēa* (Skt. *āsam*) < \**ēs̄m* < \**ēs̄m*. This apparent protraction of the initial vowel is called the *temporal* augment in contrast to the uncontracted augment in *ēpheron* etc. which is called *syllabic*. But the syllabic augment too had to often undergo contraction as the result of the disappearance of intervocalic *s* and *z* in primitive Greek, e.g. *eīkhon* (Dor. *ēkhon*) < \**ēs̄ekhon*. Contraction of the syllabic augment however did not take place in similar cases where the initial sound dropped was *z*; cf. Homeric *ē-eipon* etc. This is because the digamma disappeared so late that after its fall the law of contraction was no longer in force. The temporal augment on the other hand, originating in cases like *ēa* < \**ēs̄m* where the protraction of the initial vowel was but the result of normal contraction, became a general principle applicable apparently to any root beginning with a vowel, e.g., *āgon*, *īaineto*, *ūglainon* etc. Gradually even vowels which only secondarily became initial began to be protracted in this way, cf. *ōkheīto* instead of \**e(v)okheīto*.

Both the present-reduplication with *i* and the perfect-reduplication with *e* (LIS., pp. 37-8) are clearly in evidence in Greek. Moreover, as in Sanskrit (see Whitney, § 590 d), so in Greek too, of two or more consonants at the beginning of a root, generally only the first is repeated in the reduplication-syllable. This rule applies particularly to roots beginning with an occlusive followed by a liquid (thus *kleiō* : *kē-klei-ka*, *drōō* : *dē-dra-ka*) or with *s* followed by an occlusive (thus *hē-stē-ka* < \**se-stē-ka*). Otherwise however the reduplication-syllable in perfect consists usually merely of *e* when the root begins with a consonant-group. Thus *strateūō* : *e-strateu-ka*, *ktizō* : *ē-kti-ka*, *gignōskō* : *ē-gnōka* etc. That also roots with initial *r* have in the reduplication-syllable only *e* is because their original beginning was *sr-*, *ʒr-* etc. The original initial double-consonance appears as *-rr-* in the augmented forms of the roots concerned ; thus *rhīptō* : *ē-rīpha* (cf. *ērimmai* < \**ʒe-ʒrīp-mai*). But an uncontracted reduplicating syllable *e* is often but the remnant of a previous *ʒe-*; thus from *ōthēō* we have the perfect form *ē-ōsmai* < \**ʒe-ʒōsmai*; similarly *eirgas-mai* < \**ʒe-ʒergas-mai* (present : *ergázomai*). In classical Attic we have in this way from *horāō* the perfect-form *he-óraka* < \**ʒe-ʒorā-ka*.—The so-called Attic reduplica-

tion (see LIS., p. 144), in which the reduplication-syllable consists of the initial vowel and the consonant following it, is of Indo-European antiquity, cf. Arm. *ar-ar-i* (from present *ar-nem*). Typical Greek examples are *akēkoa* < \**ak-āko-ya*, *ód-ōda* etc. This Attic reduplication is not confined to perfect only, but is known also in Aorist (e.g. *ēg-ag-on*) and Infinitive (e.g. *ag-ag-eîn*). It is a special feature of Attic reduplication in perfect that in the radical syllable the initial vowel is protracted, e.g. *ód-ōd-a*.—Long reduplication-syllable in perfect as in Skt. *dā-dhāra* is not unknown in Greek; cf. the augmentless Homeric pluperfect *dē-dekto* from *dēkhomai*.

Greek verbal stems, like those of Sanskrit (see LIS. pp. 146 ff.), may be of present-present or present-aorist, and, as in Sanskrit, the original aspectual values of each have largely become temporal in the historical period. We shall first discuss the aorist-stems, which are on the whole much simpler than the present-stems. According as the aorist-stem is asigmatic or not, it is called strong or weak. Typical examples of strong root-aorist are Gr. *é-drān* : Skt. *á-drā-t*, Gr. *é-bē-n* : Skt. *á-gā-t* etc. in which there is no ablaut-modification of the root. Aorists of the type *eīdon* (: Skt. *ávidat*) correspond to the *a*-aorists of Sanskrit (see LIS., pp. 152-3): they may also be called root-aorists of thematic bases. As (in the unaugmented form) the accent falls on the thematic vowel (cf. Skt. *tud-á-ti*), the roots in *a*-aorist are as a rule weak-graded; thus *é-lip-on*, *é-phug-on*, *é-trap-on* etc. Strong aorists in *-ēn* such as *e-mánē-n*, *e-phánē-n* etc. were originally intransitive in meaning, but later their significance became predominantly passive. But the aorist in *-ēn* was eclipsed by the aorist in *-thēn* which is supposed to have been abstracted out of forms in *-thēs* (Skt. *-thās*) of the 2. person sg. pret. med. The ending *-thēs* in *e-dó-thēs* (cf. Skt. *á-di-thāh*) is of historical origin; the element *-th-* of this ending was analogically extended from here to every person and number.—The sigmatic aorists which are genetically connected with *s*-presents (LIS., p. 153), however, were much more productive, cf. Gr. *é-phers-en* : Skt. *á-bhāṛṣ-am*, Gr. *é-teis-a* : Skt. *á-caṣṣ-am*, Gr. *é-leips-a* : Skt. *á-raikṣ-am*, etc. Sigmatic aorists of dissyllabic roots, i.e. *is*-aorists (type Skt. *á-stariṣ-am*), are also well attested in Greek, cf. *e-krémas-a* < \**ékremāsa* from the dissyllabic root \**kremā-*. As Greek examples of reduplicating aorist (type Skt. *ájjanat*) may be mentioned *ké-klu-thi*, *é-pe-phno-n* etc. (Brgm.-Th. § 332, 334).

Of Greek present-stems, only some of the chief ones may be discussed here. Unreduplicating full-grade roots with thematic vowel (type Skt. *bhár-a-ti*) are quite common in Greek (cf. *phérō*, *ékhō*, *stégō* etc.) as also thematic reduced-grade roots (type Skt. *tud-á-ti*) such as *lit-o-mai*, *ghíph-ō*, *gráph-ō* with secondary accent, perhaps after *phérō* etc. As for reduplicating presents, cf. Gr. *histē mi* : Skt. *tīṣṭhā-mi*, Gr. *dí-dō-mi* : Skt. *dá-dā-mi* (for \**dí-dā-mi*), Gr. *pím-plē-mi* *pím-pla-men* : Skt. *pí-par-mi* *pí-pr-māh*. I.-E. *ṛo*-presents have assumed various forms on account of the peculiar phonetic laws obtaining in Greek. Thus Gr. *maino-*

*mai* < \**man-10-mai* (epenthesis): Skt. *manyē*; Gr. *rhézō* for *ṛrazō* < \**ṛraḡ-1ō*: Goth. *waitrkja*; Gr. *házomai* < \**haḡ-10-*: Skt. *yaj-*; Gr. *phéssō* < \**pek<sup>10</sup>-1ō*: Skt. *pácyā-te*. Of nasal-presents, the type *dāmnā-mi* corresponds to Skt. *mṛnā-mi* etc. There is a striking difference however in the weak-grade forms; cf. Gr. *márnā-mai* but Skt. *mṛṇi-māh* instead of \**mṛṇi-mah* < \**mṛṇa-*: the length of the vowel in the Sanskrit form is perhaps of rhythmic origin. Homeric *tānu-tai*: Skt. *tanu-té* (< *tṛnu-*) etc. are formally identical with the type Gr. *ór-nu-mi*: Skt. *ṛ-nó-mi* (see LIS., p. 151). Athematic nasal-presents of the type *riṇák-ti*, *jundák-ti* of Sanskrit are not traceable in Greek (but see Schwyzler, p. 692; Brgm.-Th., p. 336). But their thematic counterparts *muñc-á-ti* etc. (LIS., p. 151), extended by the stem-suffix *-ano-*, became quite productive in Greek; cf. *punthánomai* (: I.-E. \**bheudh-*), *tunkhánō* (Aor. *é-tukh-e*), *handánō* etc. Indo-European inchoative presents characterised by the suffix *-sḱ(h)o-* (> *ccha* in Skt. *ṛcchati*, *prcchāti*, *icchāti* etc.) are well represented in Greek; cf. *thnēskō*, *didáskō*, *gignōskō* (LIS., p. 149).

Indo-European desiderative presents with the root-suffix *-s-*, perhaps derived from sigmatic aorists of the subjunctive mode which in meaning were hardly distinguishable from what later became known as future forms, have provided the bulk of future forms in Greek as in Sanskrit (see LIS., p. 153). But the Greek future-suffix is without the element *1* which is an inalienable feature of the corresponding suffix in Sanskrit; thus Gr. *pleú-so-mai*: Skt. *pló-syá-ti*; Gr. *térp-sō*: Skt. *tarp-syá-ti*; Gr. *gnō-so-mai*: *jñā-syá-ti*. The suffix *-s-* however may phonologically disappear altogether; thus *balō*, Hom. *baléō* < \**balésō*. Similarly pres. *deirō*: fut. *derō*, pres. *theinō*: fut. *thenō*, pres. *skéllō*: fut. *skelō*, etc.—The Doric future, characterised by the suffix *-éo-* (cf. Homeric *peséomai*), is regarded as the result of the crossing of the forms in *-so-* (*leipsō*) with those in *-eo-* (*baléō*).

Greek shows two remarkable innovations in perfect-formation. Beside perfects of the type *gé-gon-a*, *lé-loip-a* etc. derived from the original Indo-European (cf. Skt. *ja-ján-a*, *ri-réc-a* for \**re-réc-a*), we have in Greek also guttural perfects (of the type *lé-lu-ka* from *liō*) and aspirated perfects (type *té-troph-a* from *trépō*). The guttural element of the *k*-perfects is met with also in Greek aorist-forms like *é-thē-ka*, *é-dō-ka* and Latin perfect-forms such as *fē-ci*, *iē-ci*. In Latin this guttural element has invaded also present-forms, cf. *facio*, *iacio*. This is not the case in Greek, but see Cyprian *dōkō* for *didōmi*! Greek guttural perfects of the earliest period were made from vowel-roots only; e.g. *lé-lu-ka*. In post-Homeric period they were at first made also from roots ending in liquids, e.g. *dié-phthar-ka* from *dia-phtheirō*, *pé-phan-ka* from *phainō*. Finally guttural perfects began to be formed also from roots in occlusives—thus *pé-peī-ka* from *peithō* etc. This guttural element might have been originally a root-increment with perfective force, cf. Skt. *dā-*: *dās-*.—The aspirated perfects are wholly an affair of form-analogy. Perfect-forms like *gégrapha* from *gráphō*

had to have an aspirate. Somehow this element caught the imagination of the Greeks and they extended it gradually to forms where it could have no etymological justification. Thus *pé-pom-pha* from *pémpō*, *ké-kloph-a* from *kléptō*, *ēkha* from *ágō* etc. In the Homeric language the use of the aspirated perfect is restricted. But later this perfect became very popular.

Regarding verbal modes it is necessary to remember that Greek is the only Indo-European dialect besides Sanskrit in which the optative has been retained distinct from subjunctive: what passes for "Subjunctive" in the other dialects is mostly of optative origin. The Indo-European optative-suffix was *ǵē*: *ī* (see LIS., p. 158), which is clearly perceptible in Gr. *eiēn* < \**esǵēm*: Skt. *syām* etc. In the case of thematic verbs however we find the suffix *-oi* in optative (e.g. *phéroī*) which can but be the thema-vowel *o* plus *i*: the optative-suffix was therefore throughout only *i* in the case of thematic verbs, and that not only in Greek but also in Sanskrit (see LIS., loc. cit.). The endings of optative are secondary—though not always—both in Greek and Sanskrit.—From the earliest times the modal suffix of the subjunctive could be both long or short according as the verb was thematic or not (see LIS., p. 159), and the subjunctive stems of athematic verbs are indeed nothing but their thematised forms (see Brgm.-Th. § 401. 1). Thus ind. *i-men*: subj. *i-o-men* (athematic); ind. *phér-o-men* *phér-e-te*: subj. *phér-ō-men* *phér-ē-te* (thematic). But Greek like other Indo-European dialects favoured the long-vowel subjunctive forms more than the short-vowel ones which looked like thematic verb-forms of the indicative and were therefore ambiguous from the beginning. This expansion of the long-vowel forms was further facilitated by the fact that some verbs were both thematic and athematic in the indicative—wherefore their subjunctive forms too could be normally both long-vowelled and short-vowelled. Moreover in the original Indo-European the same ending *-ō* was used in the first person singular active both of thematic and athematic verbs in the subjunctive\*; cf. Gr. *teísō*, Skt. *brávā* (athematic): Gr. *ágō*, Skt. *árcā* (thematic). Hence the motive for and the facility to replace the short-vowel subjunctive forms by long-vowel ones were never wanting.

As regards personal endings, Greek has preserved both the primary endings *-ō* (thematic) and *-mi* (athematic) in the 1. pers. sg. of the present indicative (see LIS., pp. 21, 161). The corresponding primary ending *-si* of the 2. pers. is still perceptible in *εἶσι* which in Homer might have been throughout used (see Bgmn.-Th., § 414. 1) for the later form *εἶς*, of which the ending is clearly secondary in appearance as also that of thematic verbs like *phéreis* etc. The primary ending *-ti* of 3. pers. sg. has been preserved in Doric (cf. *didō-ti* etc.) though in Attic it has phonologically become *-si*. The ending *-men* in 1. pers.

\* Though in the indicative the corresponding endings were sharply different, e. g. *-o* and *-mi*.

pl. is a Greek innovation, but the Indo-European ending *-mes* (Skt. *-mas*) is clearly perceptible in the Doric forms *nīkō̃-mes*, *estāsa-mes* etc. The original primary ending in 2. pers. pl., as attested both by Centum and Satəm dialects, seems to have been *-te*, which however appears as the corresponding secondary ending in Sanskrit; thus Gr. *phére-te*, O. Ch. Sl. *bere-te*: Skt. *bhādra-tha* (but see the secondary ending *-ta* in *ā-bhara-ta*). In 3. pers. pl. the Indo-European ending was *-enti* after consonant: thus Doric *\*h-enti*: Skt. *s-ānti*. Its secondary form *-ent* phonologically became *-en* in Greek, cf. Hom. *ē-en*: Skt. *ds-an* < *\*e-es-ent*. After sonant the primary ending in this position was *-nti* (cf. Dor. *phéro-nti*: Skt. *bhāra-nti*), and the secondary ending was *-nt* which phonologically became *-n* both in Greek and Sanskrit; thus Gr. *é-phero-n*: Skt. *ā-bhara-n* < *\*é-bhero-nt*.

The endings of Imperative were somewhat different from the beginning. Already in the original Indo-European, thematic verbs were endingless in 2. pers. sg., but athematic verbs took the ending *-dhi*; cf. Gr. *phére*: Skt. *bhāra*, but Gr. *klū̃-thi*: Skt. *śru-dhī*.—The Indo-European imperative ending *-tōd* > Skt. *-tāt* (see LIS., p. 163) is well attested in Greek, cf. *(v)istō*: Skt. *vittāt* etc.—The peculiar perfect endings in Skt. *vēda vēttha vēda* have their exact counterparts in Gr. *oīda oīstha oīde*. The endings of reduplicating perfects are not so easily reconcilable, but see Gr. *gégona*: Skt. *jajāna* etc.—As for medial endings of the present, let us mention that Gr. *-tai -sai* correspond to Skt. *-te -se*; but to Gr. *-mai* corresponds not *-me* but *-e* in Skt. Thus Gr. *phéromai*, but Skt. *bhāre*. This *-mai* like the corresponding active ending *-mi* seems to have been originally of the athematic flexion.

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# MISCELLANEA

( 1 )

## KUŠADVĪPA

In an illuminating paper read before Section II of the Indian History Congress (Calcutta Session, 1939), Prof. H. C. Raychaudhuri threw a flood of light on the geographical knowledge of the ancient Indians. In that paper the learned Professor made an interesting suggestion regarding the connection of Śākadvīpa of the Purāṇas with the "Sakā tyaiy taradraya (or, paradraya)," i.e., "the Skythians that are beyond the sea," mentioned in the inscriptions of ancient Persian emperors (Naqsh-i-Rustam inscription of Darius no. A, ll. 28-29).

The name of a country called Kuš and a people called Kušiya (inhabitants of Kuš) are found in several Old Persian inscriptions. The Hamadan inscription of Darius (c. 522-486 B.C.), for instance, gives the following boundaries of the empire of that great monarch : hacā Sakaibiš tyaiy para Sugdam amata yātā ā Kušā hacā Hindaup amata yātā ā Sparda, i.e., "from the Skythians that are beyond Sogdiana—from there—as far as Kuš, from Hindu (=Sindu =India =the district on the Indus) —therefrom— as far as Sparda (=Sardis)." Some scholars identify Kuš with Ethiopia, while others place a country of that name in middle Egypt (Hall, *Ancient History of the Near East*, 7th ed., p. 225). As Mudrāya (=Egypt) and Kuš are both mentioned in the list of satrapies of the ancient Persian emperors, their Kuš cannot be placed in Egypt. There can, however, be no doubt that the country called Kuš was situated somewhere in north-eastern Africa beyond Egypt. It appears possible to connect this country with Kušadvīpa, which is (like Śākadvīpa) one of the seven island-continents mentioned in the Purāṇas.

DINES CHANDRA SIRCAR.

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( 2 )

## THE SOURCES OF THE KĀĪYA-NĀGA LEGEND

Under the caption "*Sources of two Krishna Legends*," there appeared an article recently<sup>1</sup> where the author attempts to trace the origin of the two sagas viz., the *Syamantaka* legend and the story of the Kāīya-nāga. Regarding the latter legend, the author takes into consideration the versions of it as exists in the *Satapatha-brāhmaṇa*,<sup>2</sup> the *Harivaṃśa* and the *Viṣṇu-purāṇa*, and concludes that the legend might have originated among the old Vedic *gāthās* and that it is not possible to make any definite statement regarding the origin of this legend.<sup>3</sup> The present is an attempt to bring in one more Vedic passage which seems to have some connection with this legend and thereby trace the earliest known source of this story.

The Vedic passage in question is from the *Rg-veda* and forms part<sup>4</sup> of the 96th hymn of the VIII Maṇḍala of that Veda. The verses run as follows :—

āva drapsó aṁsumātīm atiṣṭhad iyānāḥ kṛṣṇó dasābhīḥ sahásraiḥ |  
 āvat tám indraḥ śácya dhāmantaṁ āpa snēhitīr nṛmānā adhatta |  
 drapsám apaśyaṁ viṣṇuṇe cārantam upahvaré nadyò aṁsumátyāḥ |  
 nābho ná kṛṣṇām avatasthivāṁsam iśyāmi vo vṛṣaṇo  
yūdhyaajāraḥ ||  
 ādha drapsó aṁsumátyā upāsthé 'dhārayat tanvām titviśānah |  
 viśò ādevīr abhi ācārantīr bṛhaspátinā yujéndraḥ sasāhe ||

Wilson translates the verses thus :—

"The swift-moving Kṛṣṇa with ten thousand (demons) stood on the Aṁsumatī; by his might Indra caught him snorting (in the water); he, benevolent to man, smote his malicious (bands).

I have seen the swift-moving (demon) lurking in an inaccessible place, in the depths of the river Aṁsumatī, (I have seen) Kṛṣṇa standing there as (the Sun) in a cloud; I appeal to you showerers; conquer him in battle.

Then the swift-moving one shining forth assumed his own body by the Aṁsumatī, and Indra with Bṛhaspati as his ally smote the godless hosts as they drew near."

1. *Indian Culture* — Vol. VI, No. 4.—pp. 464 ff.

2. The *Satapatha Brāhmaṇa* mentions only the 'driving of a great snake from its own place, the lake' (*mahāhim iva vai hradān baliyān anvavetyānutta svādashānāt*), but there is no definite evidence to say that the *Brāhmaṇa* is here referring to one of the exploits of Kṛṣṇa in his youth.

3. *Op cit.*, p. 467.

4. RV. VIII. 96 (13-15).

The *Bṛhaddevatā* (VI.109-15) which comments on these verses says that the story contained here is that pertaining to the flight of Soma and his recapture. Soma, being afraid of Vṛtra, betook himself, it is said, to a river named Amśumatī in the country of the Kurus. Indra followed it with Bṛhaspati and the Maruts, and requested it to come back. It, however, thought that Vṛtra had come with a hostile host with the intention of slaying it, and not only refused to return but also attempted to resist. The mighty Indra then captured it by force, and took it to the gods who drank it and were thereby enabled to vanquish their natural enemies, the demons.

Commenting on these verses, *Sāyaṇa* says that the allusion here is to the legend that Indra, aided by Bṛhaspati and the Maruts, slew the demon Kṛṣṇa, who with 10,000 other demons had occupied the river Amśumatī.<sup>5</sup> *Sāyaṇa* also mentions the legend given in the *Bṛhaddevatā*, but he dismisses that account with the remark that, not being implicit in the *Mantra* (word of a Ṛṣi), it cannot be accepted (*etad anāṛsatvena anādaraṇīyaṁ bhavati*<sup>6</sup>).

Benfey takes Amśumatī to be the sunlight and construes the line *āpa snéhitīḥ nṛmānā adhatta* as referring to the cloud :

[“In die Amśumatī sinkt niedereilend, herschreitend mit zehntausenden der schwarze.”]<sup>7</sup>

A fourth explanation of these verses would be to take them as sources of the Kālīya-nāga legend which is familiar to us chiefly through the Purāṇas. The description that Kṛṣṇa stood on the Amśumatī with 10,000 demons might have been responsible for the description of the many-hooded Kālīya serpent which, with its paraphernalia, infested the River Yamunā ; so also the account that Kṛṣṇa accompanied by his brother Balarāma went to the river Yamunā, vanquished the black serpent (Kālīya-nāga) and drove him along with his followers from that place, might have been suggested by the Vedic story that Indra and Bṛhaspati together fought with the demon Kṛṣṇa and his acolytes who had infested the river Amśumatī and vanquished

5. The *Nītimañjarī* of Dyā-dviveda also quotes this legend in the course of its commentary on RV. VIII. 96. 13.

6. It is difficult to agree here with *Sāyaṇa* for the *Bṛhaddevatā*, which is responsible for this parallel account, does not deserve to be treated so cheaply ; cp. Max Müller—*Varieta Lectionae* to Vol. IV of his edition of the *Ṛgveda* with *Sāyaṇa*'s commentary—p. 50.

7. Cited in Wilson's *Ṛgveda* — Vol. V. p. 192 n.



them all.<sup>8</sup> That according to Vedic tradition *Indra* and *Viṣṇu* belong to the same group of gods<sup>9</sup> (i.e., Solar deities), that *Kṛṣṇa* in the *Bhāgavata* is none else than an incarnation of *Viṣṇu*, and that *Aṁśu-matī* is another name for the river *Yamunā*, are some more factors which support the above supposition.

The story of the fight between *Indra* and *Vṛtra* which is very frequently mentioned in the *Ṛgveda* seems also to have exerted some influence on the *Kāṣya-nāga* legend. *Vṛtra* is conceived by the Vedic seers as having the form of a serpent. He seems to have received the appellative '*ahi*' as a formidable enemy of mankind, enveloping his prey like a serpent in his coils. The *Vṛtra*-slayer *Indra*, who is also called the serpent-slayer, is said to have slain the serpent (RV. IV. 17. 1; VIII. 82. 2.) The identity of *Ahi* and *Vṛtra* becomes quite clear when we see that these two terms often interchange (RV. I. 32. 1, 2, 7-14); and by the 'first born of the serpents' (*prathamajām āhīnām*)<sup>10</sup> none else is meant than '*Vṛtra*, the most *Vṛtra*' (*Vṛtrām Vṛtralāram*).<sup>11</sup> When *Ahi* is mentioned alone, the results of *Indra*'s victory over him are the same as in the case of *Vṛtra*, the god causing the waters to flow, delivering the seven streams, or winning the cows. The waters are said to be encompassed by the serpent, the action being frequently expressed by the root *vr̥*-to encompass' (RV. II. 29. 2; VI. 20. 2.); the waters are also sometimes said to be arrested by the serpent and *Indra* is said to have set them

8. It may be of interest to note in this connection that the myth of *Kāṣya-nāga*, astronomically interpreted would resolve itself thus: "The serpent is the *Āśleṣa* asterism; the Sun plunges into the rainy season which is metamorphosed as the *Yamunā* river, and as at that time he comes in conjunction with the Serpent, the fancy is that he subdued him, while the sea to which he is sent is the blue sky itself" ("*Essays on Indo-Aryan Mythology*" by Narayana Ayyangar, Part II, pp. 510 ff.)

9. It is also a fact that one of the most prominent secondary characteristics of the Vedic *Viṣṇu* is his friendship for *Indra*. One entire hymn in the RV. (i.e., VI. 69) is dedicated to these two deities conjointly. Even in hymns where *Viṣṇu* alone is extolled, *Indra* is the only other deity incidentally associated with him (cf. RV. I. 155. 2; RV. VII. 99. 5). *Viṣṇu* is said to have strode his three steps by the energy (*ojasā*) of *Indra* (RV. VIII. 12. 27), while *Indra* about to slay *Vṛtra* says 'Friend *Viṣṇu*, stride out vastly.' *Viṣṇu* is also very frequently allied with *Indra* when the latter sets out to fight with *Vṛtra* and other demons. In later Purāṇic Mythology also, *Viṣṇu* goes by the name of *Upendra*, *Indra*, the junior.

10. RV. I. 32. (3, 4).

11. Ibid. I. 32. 5.

free (*syjāh sindhūmr āhinā jagrasānān*).<sup>12</sup> Vṛtra, the serpent, who, in the Vedic story, encompassed the waters should have later been described as the serpent Kālīya who infested the river Yamunā and made the water poisonous and hence inaccessible; and the Vedic story of Indra who killed Vṛtra and released the waters might have, in later literature, transformed itself into the story of Kṛṣṇa who, having vanquished Kālīya and driven him out of the river Yamunā, made the river approachable.

We could, therefore, possibly, infer that the Kālīya-nāga legend must at least have been *inspired* by these *two* Vedic stories of the fight between *Indra* on the one side, and the demon *Kṛṣṇa*<sup>13</sup> or *Vṛtra* on the other, though it has to be admitted that a pre-Purāṇic work,<sup>14</sup> narrating the full story of *Kālīya-nāga* as is now available to us, is still a matter for discovery.

H. G. NARAHARI.

12. Ibid. IV. 17. 1; X. 111. 9.

13. This enmity between Indra and Kṛṣṇa in the Vedas seems also to have been adopted by the Purāṇas, for in the *Bhāgavata* (X. 16.) we hear of Kṛṣṇa lifting up the *Govardhana* mountain to protect the cows from the terrific torrents of rain caused by the irated Indra.

14. The *Mahābhārata* (Sabhāparva-Chap. LIII. 14-15) also narrates this story in *two* verses, but the description is too very brief. Mr. J. C. Ghosh overlooks this passage when he observes that 'there is no mention of the incident' in the *Mahābhārata* (*Indian Culture* — Vol. VI., p. 466).

( 3 )

### YUVARĀJA DIVĀKARA

Since all suggestions made and inferences drawn in history on indirect evidences always involve the risk of error, my identification of the *Yuvarāja* Divākara of the *Saduktikarṇāmrta* (I.C., VI. p. 355) may be wholly wide of the mark, but I regret that Dr. D. C. Sircar's suggestion (*ibid.*, pp. 478-79) does not improve the case in any way when he identifies the author in question with the Vākātaka prince Divākarasena (c. 400 A.D.), of whom we do not even know that he had outlived the period of his minority. As such, the question of the

authorship or the *Setubandha* does not arise here at all, but supposing, on the one hand, that the name of the Vākāṭaka Pravarasena, rather than that of the Pravarasena of Kāśmīra, has to be associated with this work as its author, and to him also are to be attributed the verses in the *Kavīndravacanasaṃuccaya*, *Subhāṣitāvalī*, *Padyāvalī*, etc., quoted under the name of a Pravarasena, and, on the other, that the Vākāṭaka Divākarasena did attain to major age, the proposed identification, standing alone and without any corroboration from any direction, is of no real help to us.

It is, I may add here, characteristic of Śrīdharadāsa to draw from Bengal poets in his *Saduktikarṇāmrta*, as much as Vallabhadeva does in respect of Kāśmīrian poets in his *Subhāṣitāvalī*, and since a poet Divākara is absolutely unknown to other anthologies available in print than the *Saduktikarṇāmrta*, I prefer to take him as one belonging to Bengal, and, again, in view of that he alone is quoted therein as *Yuvarāja*, it is not improbable that he represents the eldest son of Śrīdharadāsa's royal master, Lakṣmaṇasena, whose other sons, too, are found quoted in the same anthology.

N. N. DAS GUPTA.

( 4 )

## MEDICINE IN JĀTAKA TALES

*A peep into the beliefs and practices of Pre-Buddhistic India.*

Medicine, as conceived and practiced in the centuries immediately preceding the birth of Buddha, is reflected in the collection of Jātaka tales or birth stories, pronounced to be "the oldest, most complete, and most important collections of folklore extant." "All the stories in Jātakas and Pāli Piṭakas are at least older than the council of Vesālī." This great assembly was convened about a hundred years after the death of Gautama Buddha, i.e. about 370 B.C.

The Mahosadha Jātaka deals with the birth and career of the Bodhisatta, who received the name "The great physician," because he was born with a powerful drug in his hand. His mother asked him "what is it you hold as you come? He answered, "Herb-medicine,

mother" He was hence called herb-medicine child or Osadhakara. Taking this medicine the people kept it in a chety (an earthen pot) and it became a drug by which all *sickness of the blind, deaf, and others as many as came was healed*. So the saying sprang up "This is a great Osadha," and hence he was called Mahosadhakara, "The great herb-medicine man."

The Bodhisatta as Khema, the king, is reported to have given to the order of the monks not only robes and bowls but also "Collyriums—and medicines." The story of the converted miser tells us not only of the lame hunch-backed man with a squint but also of a person in a swoon, being treated by having water dashed on the face. This story also gives one of the oldest methods of identifying persons i.e. by looking for a mole. The story of the valiant dwarf "The sage little man" explains that the three Vedas and 18 branches of knowledge were taught by the world famous teachers at Taxila. One also visualises the physical monstrosity of the little dwarf so frequently portrayed in Barhut and in Amaravati sculptures. The tale entitled "The lucky sneeze" refers to expert skill in the manufacture of artificial noses. A Brahmin, while forcibly sneezing split his nose and the king of Kāśī, Brahmadatta, called in the surgeons and had the Brahmin fitted with a false tip to his nose, which was cunningly painted, for all the world, like a real nose. This story supports the tradition that Kāśīrāja Dhanvantari started and developed a school of surgery in the kingdom and of Kāśī long before the advent of Buddha. In the "Rash magician," we read of the Bodhisatta born in a family of wealthy Brahmins during the reign of King Brahmadatta of Benares, and going to Taxila to receive all-round education. Later, this Brahmin boy became a teacher at Benares enjoying world-wide fame as the preceptor of 500 Brahmin disciples. Among them was one named Sañjīva, to whom the Bodhisatta taught the spell for raising the dead to life. But though the young man was taught this, he did not know the counter-charm. Proud of his new power and unsuspecting of consequences, he used his charm on a dead tiger. "Up started the tiger and quick as lightening sprang at Sañjīva." In the story of "ungrateful wife" we read of Prince Padma, son of king Brahmadatta of Kāśī whose hands and feet, nose and ears had been cut off. The prince brought the man groaning with pain to a hut and "with *astrigent lotions and ointments* he tended his wounds." The tale of 6-tusked elephant not only hints the custom of using *elephant tusks for medicaments* but also describes the hunter named Sonuthasa "one that was broad of foot with a calf swollen like a food basket, big in the knee." Is it possible that the hunter had some *tumor or elephantoid condition of the leg*? In the story of the ugly bride-

groom, it is said that the hunch-backed nurse of the princess used her persuasive eloquence in favour of the prince only after the latter promised to cure her physical deformity. It looks as if even the members of the Royal family had taken up orthopedic work—i.e. correction of deformities, as a hobby. In the tale of the 19 problems, there are two references to Mahosadha sage, giving wise judgments. The sage is also known as the son of the guild-master, Sirivaddhaka. One of the problems the sage solves deals with the mode of distinguishing a man's skull from a woman's, on a purely anatomical basis: "sutures in a man's head are straight and in a woman's crooked." We are not concerned whether this observation is correct. It is enough for our purpose that a primitive type of physical anthropology, based on the examination of the skulls, had its beginnings in India, even before the birth of Buddha.

To crown all these references, there is the Sibi-Jātaka where the king sends for the skillful surgeon Sivaka and asks him to operate and remove the eyes, to be able to present them to an old Brahmin. This King Sibi is said to have studied at Takṣaśilā and proved his knowledge before he succeeded his father to the throne. One day he vowed that he would give, if any one asks, something which is part of himself. "If he should mention my very heart, I will cut open my breast with a spear and as though I were drawing up a water-lily, stalk and all, from a calm lake, I will put forth my heart dripping with blood-clots . . . . .

"If he should name the flesh of my body, I will cut the flesh of my body and give it as though I were gravings with a gravings stool . . . . . Should any man demand my eyes I will tear out my eyes and give them as one might take out the pith of palm tree." Sakka (Indra) wished to test the king and in the form of an old blind Brahmin and appeared in the path of the king and said:—

"To ask an eye the old man comes from far for I have none ;

O, give me one of yours, I pray, then we shall each have one.

Give me an eye, that chiefest gift of gifts,

So hard for me to part with, as they say."

The great King was delighted at this chance to fulfil his heart's desire by giving a gift which no man had ever given yet.

"—Here Brahmin take my eyes,

One eye thou didst request of me, behold I give thee two."

Then thinking it not meet that he should root out his eyes, there and then, he took the Brahmin indoors and sent for the surgeon named Sivaka to whom he said "take out my eye."

The whole city soon rang with the news and his officials and relatives tried to persuade the king to desist from such a purpose.

When asked what his motive was he answered that he was simply enamoured of giving gifts. Then he addressed the surgeon :—

“A friend and comrade Sivaka art thou :

Do as I bid thee—thou hast skill enough—

Take out my eyes for this is my desire

And in the beggar’s hands bestow them now.”

Perhaps the surgeon was a fellow student at Takṣaśilā, where he must have acquired the skill. He also tried to dissuade him, but the King said “Do not delay or talk too much.” Then the surgeon thought “It is not fitting that a skilful surgeon like me should pierce a king’s eyes with a *lancet*.” So, he poured a number of simples, rubbed the blue lotus with the powder and brushed it over the right eye. “Round rolled the eye and there was great pain.” Once again, Sivaka told the King that he could make it all right if the King changed his mind. But every time the king said “be quick”. After the powder was applied three times, the eye came out from the socket and was dangling at the end of the tendon. Blood was trickling on King’s garments. The women and courtiers wailed, and begged him not to sacrifice the eyes. Even then the king endured the pain and said “My friend, be quick.” Then the surgeon, with his left hand grasping the eye ball took the knife in his right and severing the tendon laid the eye in the great being’s hand.” Then he gave the other eye also.

The post-operative appearances are also interesting. In a short while, “the king’s eyes began to grow.” As new tissue grew it reached the top of the holes and a lump of flesh rose up inside like a ball of wool filling the cavity. They were like a doll’s eyes but the pain ceased.

Ā. V. S. REDDY.



( 5 )

## ON THE HEIGHT AND CEPHALIC INDEX OF THE BENGALÉE STUDENTS

This paper is really a communication and not a complete study of the subject. It is a part of a survey on the incidence of diseases and distribution of criteria of physical growth among students coming from various parts of Bengal, district by district. The total number of students examined is over 23,000 and the mass of material that has to be sifted and tabulated is enormous.

In the study of the distribution of the Height and Cephalic Index, only those students whose ages are 21 years and above have been included. The number of students in districts for which an average has been given is at least 200. The height has been taken with an anthropo-meter and the head-length and head-breadth by means of Martin's Cranio-meter. The measurements are taken by Mr. H. N. Bose, a qualified medical practitioner, who has specialised in this work for over 12 years, and roughly 10% of the data has been checked by me in the routine work of the Students' Welfare Committee.

At the very outset, I must mention that the results obtained are not a picture of the general Bengalee population. They are based on the study of a selected group, namely, the class which supplies students to the University. The incidence of different elements composing this class is as follows :—

|                    |      |
|--------------------|------|
| Brahmins .....     | 31%  |
| Kayasthas .....    | 28%  |
| Vaidyas .....      | 8%   |
| Other Hindus ..... | 19%  |
| Mohamedans .....   | 7%   |
| Christians .....   | 2.5% |
| Unknown .....      | 4.5% |

Among the group "Unknown" are mostly grouped students who are Hindus, but who refused to declare their particular castes, and most of them probably come from the group which is technically termed the "Educationally backward classes."

I must again apologise for the insufficient statistical treatment of the data. The work is still in progress and I hope to publish a detailed study at some future date ; but as the preliminary findings seem to be interesting, I have been tempted to make the following tentative statements :—

## HEIGHT.

The average height for the Bengalees is 165-166 cm. The Bengalees are a medium-sized people and in no district is the average below that of medium stature and similarly in no district does the average reach the limit of the tall people. A strain of comparatively tall people giving an average of 166-168 cm. is found to inhabit the districts of Hooghly, Nadia, Pabna, Rangpur, Birbhum and Chittagong. Comparatively short-statured people are found in the districts of Midnapore, 24 Parganas, Jessore, Buckergunge, Bogra, Dinajpore and Jalpaiguri. In all these districts the average is below 165.

It would, therefore, seem that a comparatively tall people inhabit the central districts of Bengal.

## CEPHALIC INDEX.

The average cephalic index is 79. The Bengalees are predominantly a meso-cephalic people. Mymensingh is the only district where a distinctly dolicho-cephalic average is found, viz. 75.2. A meso-brachycephalic average of over 80 is found in the districts of Jessore, Faridpore, Khulna and Hooghly. The people of South-West Bengal are meso-cephalic and give averages between 78 and 80. The people of Eastern Bengal are on the whole dolicho-mesocephalic and give averages which are below 78. In the Northern districts this tendency to dolicho-cephaly again reappears in the districts of Rangpur and Maldah. If we combine the distribution of Height and Cephalic Index we notice that in the central districts of Bengal we meet with a strain which is above the medium height, i.e., with a tendency to brachycephaly. The district of Birbhum is an exception to the general distribution in South-West Bengal, a strain with a tendency to tallness and dolicho-cephaly being met with. In Eastern Bengal the type shows a tendency to shortness and is mainly dolicho-cephalic. This is most marked in the district of Mymensingh where the people are distinctly dolicho-cephalic and of short medium stature. In the district of Chittagong we meet again a tall meso-cephalic group.

A. CHATTERJEA.



( 6 )

## THE HINDUS IN MEDIÆVAL INDIA

In an article read before the Indian History Congress (Calcutta Session, 1939) and published in the *Proceedings* Dr. Mahdi Husain has tried to prove that the Muslim rulers of medieval India did not interfere with the religious and political rights of their Hindu subjects.

He says that "the principle of *cujus regio ejus religio* which inspired the religious policy of the Tudor monarchs in England and German princes found no place in the history of Medieval India." This is certainly a risky generalisation. Did not Sultān Sikāndar of Kāshmīr offer his subjects the choice between Islām and exile? Sir Wolsely Haig says that "the results of Sikāndar's zeal are seen to-day in Kāshmīr, where there are no more than 524 Hindus in every 10,000 of the population."<sup>1</sup> Did not Fīrūz Shāh Tughluq burn a Brāhmin who tried to propagate his religion?<sup>2</sup> Did not Sikāndar Lodī kill a Brāhmin whose "only offence was the desire for an accommodation between the religions of the conquerors and the conquered?"<sup>3</sup> Did not Husain Shāh of Bengal send an army to destroy Navadvīp, the centre of Hindu learning, and convert many Brāhmins forcibly?<sup>4</sup> Does not Jahāngīr confess in his autobiography that he killed Guru Arjun for his religious activities? Even the casual reader of medieval Indian History knows that such instance can be multiplied. Those who harp on the tolerance of Akbar and Zain-ul-Ābidīn of Kāshmīr simply forget the old dictum that exception proves the rule. We do not of course argue that the Muslim kings succeeded in crushing their heretic subjects. If Elizabeth could not crush a minority of Catholics and Puritans even with the approval and active assistance of the majority of her subjects, how could the Muslim rulers crush the overwhelming majority of the Hindus with the support of a handful of their co-religionists? Intelligent rulers like Alā-ud-dīn Khaljī understood the position and refused to listen to learned doctors like Mughis-ud-dīn. Men like Fīrūz Shāh Tughluq, Sikāndar of Kāshmīr and Sikāndar Lodī failed to grasp the realities of the situation and exasperated their Hindu subjects by a policy of persecution.

1. *Cambridge History of India*, Vol. III, p. 280.

2. *C.H.I.*, III, p. 187.

3. *C.H.I.*, III, p. 246.

4. See Jayānanda's *Caitanya-Maṅgala* and Vṛndāvanadāsa's *Coitanya Bhāgavata* (contemporary Bengali works).

Dr. Husain says that the "Hindus in Medieval India enjoyed freedom to observe religious rites." Strangely enough, he quotes Bernier and Elphinstone as authorities for this statement. Our knowledge of Indian history has made so much progress since the days of Elphinstone that no modern schoolboy would rely on him. Bernier, says Dr. Husain, saw the Hindus burning their widows, attending sun-eclipse fairs and bathing at the ghats. Certainly he says all these things, but how does this prove that the religious rites of the Hindus were not interfered with *during the medieval period by any Muslim ruler*? Bernier speaks of his own age, and not of the past. Moreover, Bernier's statement must be read together with other available information regarding the reign of Aurangzib. Does Dr. Husain ask us to believe that the *facts* collected by Sir Jadunath Sarkar regarding the religious policy of Aurangzib<sup>5</sup> are unreliable? Does not Bernier, on whom he places so much reliance, say that many Hindus embraced Islām to escape from the Jiziā?

We agree with Dr. Husain when he says that temples and *Dharm-śālās* were built and preserved, and that some of the Muslim rulers made grants for the maintenance of Hindu temples. India is too big a place, and it would have been strange if the Muslim rulers succeeded in preventing the erection of any temple or *Dharmśālā* in any part of this country during a period of 600 years. And probably Dr. Husain would agree that the number of Muslim rulers who made grants for the maintenance of Hindu temples was insignificant in comparison with those who destroyed them. Readers of Muslim chronicles and students of medieval Indian architecture are so familiar with stories of temple destruction that no example need be reproduced here.

Dr. Husain says that Alā-ud-dīn intended "to leave to the Hindus just sufficient maintenance and not to allow them to accumulate hoards." This policy certainly aims at making the Hindus "hewers of wood and drawers of water to their Muslim masters." It was, Dr. Husain tells us, "devised to meet certain emergencies just as martial law is now occasionally enforced . . . ." What these "emergencies" were he does not tell us. Alā-ud-dīn's own words, quoted by Dr. Husain, show that he wanted to make the Hindus "submissive and obedient" by reducing them to poverty. No "emergency" is mentioned. The economic strangulation of the Hindus was to become a permanent feature of administrative policy. Dr. Husain quotes the authority of Moreland in support of his view that Alā-ud-dīn wanted "to break the power of the rural classes, the chiefs and the headmen of parganās and villages." There was an attempt to distinguish

5. *History of Aurangzib*, Vol. III, Chap. xxxiv.

between the *Hindu* upper classes and the *Hindu* lower classes, and we are told that Alā-ud-dīn's measures were "favourable" to the latter. It is clear that only the upper class Hindus were in a position to "accumulate hoards;" Alā-ud-dīn naturally tried to crush them and left the half-starved peasants<sup>6</sup> undisturbed. But the measures adopted by him certainly injured the position of the *Hindus as a community*, and Dr. Husain will probably recognise that "current books of History" are not incorrect in describing them as "anti-Hindu legislation." If this legislation failed to achieve its purpose,<sup>7</sup> the credit goes not to its author but to its victims who succeeded in baffling the short-sighted policy of a tyrant.

Dr. Husain tries to show that the imposition of the Jiziā was not unreasonable. He says, "It was not imposed on the Hindus or non-Muslims as penalty for their refusal to accept the Muslim faith but was paid by them because of their exemption from the obligation to render military service and in return for the protection secured for them by the arms of the Muslims." He adds, "... as soon as the Hindus volunteered their service in the army they were exempt from the Jiziā." He himself contradicts these statements when he says that "the armies of early Muslim rulers of India contained a large number of Hindus." Were the Hindus exempt from the Jiziā during the reigns of these early Muslim rulers? Did not the Hindus serve in the armies of Aurangzib when he re-imposed the Jiziā? It is clear that *as a matter of fact* the Jiziā was a "penalty for their refusal to accept the Muslim faith."

Dr. Husain cites two cases to show that "the Hindus under Muslim rule were not without the means of securing redress." One of the cases relates to Muhammad bin Tughluq; the other occurred in the reign of Jahāngīr. These rulers have no reputation for unadulterated orthodoxy like Fīrūz Shāh Tughluq and Aurangzib. Moreover, two cases selected out of millions prove nothing.

We are told that the Hindus occupied high offices under Muhammad bin Tughluq and the Mughal Emperors. What was their position under other rulers? Dr. Husain says that Sikāndar Lodī invited the Hindus to learn Persian so that they might be appointed to government posts. Did any of his predecessors take any such step? The

6. Dr. Husain quotes Afif's statement to show that "every ryot had a good bed-stead and a neat garden" and that their women used gold and silver ornaments. If this is anything more than a pleasing picture drawn by a court historian, it refers to the reign of Fīrūz Shāh Tughluq alone.

7. Dr. Husain quotes some of Baranī's statements to show that poor Muslims came as supplicants before the Hindu aristocracy of wealth.

Hindus admittedly proved their anxiety and ability to learn their masters' official language during the Mughal period as well as the British period. Why, then, did they remain aloof for the first three centuries of Muslim rule in their country? The only answer is that they were not admitted to the official hierarchy. In the thirteenth century the Turks offered an uncompromising resistance to the Afghāns, Arabs, Abyssinians and Indian converts whenever they tried to participate in political power. No Hindu could expect them to show more favour to him than to their co-religionists.

The subject of our discussion is one of the most important aspects of medieval Indian history and Dr. Husain deserves our congratulations for bringing it to the notice of all serious students. Unfortunately the present political atmosphere in this country is not favourable for the frank discussion of all the issues involved in this complicated subject. Our Muslim brethren need not take offence if the Muslim rulers of the past are found to be as sincerely loyal to their faith and as suspicious of non-believers as their contemporaries in all parts of the world. Nor need the Hindus get excited to hear that temples were destroyed to supply stones for mosques and that their ancestors were excluded from government posts in an age which knew no Public Service Commissions. It was natural for the Muslims to suspect and to suppress the Hindus by political, economic and religious measures which appear extremely objectionable to twentieth century rationalism.

ANIL CHANDRA BANERJEE

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## REVIEWS

**MAHĀBHĀRATA**, Udyogaparvan (1), Fascicule 9, pp. 400, critically edited by Vishnu S. Sukthankar with the cooperation of various scholars; Poona, Bhandarkar Oriental Research Institute, 1937.

This is the ninth fascicule of the now-famous Poona edition of the Mahābhārata for which the general editor has successfully mobilised the collaboration of the best talents in India and abroad. Dr. S. K. De is directly responsible for the Udyogaparvan which will be completed in another equally substantial fascicule. The high standard set up by Dr. Sukthankar has been fully maintained—if not enhanced—by Dr. De in this volume. It is to be noted that in the *Sanatsujātiya* section Dr. De did not attach any special value to Śaṅkarācārya's version. The Javanese version too has not been allowed to influence the text reconstructed from Indian manuscripts, for, as Dr. De justly says, it is evidence only for the epic text as existed in a particular local form in the eleventh century and was known to the Javanese adapter. The only available Śāradā Codex of this Parvan was received for collection not before the entire text had been completely written out. Dr. De therefore proposes to give its variants in a separate Appendix at the end of the final fascicule.

Dr. Sukthankar and Dr. De are to be heartily congratulated on their fine achievement. And we fervently hope that generous donations from the enlightened public of India will enable the editorial board to accomplish their stupendous task.

BATAKRISHNA GHOSH.

**ATHARVAVEDA-SAMHITĀ**, Sāntabalekarakulajena Dāmodarabhaṭṭasūnūnā Śrīpādaśarmaṇā sampaḍitā—with the help of many Vedic scholars on the basis of various ancient manuscripts, pp. 15+520, Aundh, Sam. 1995.

The Svādhyāya-maṇḍala of Aundh in doing excellent work by publishing the Vedic texts in cheap, handy and reliable editions. But for the unfortunate decision of the editorial board not to give the Padapāṭha, this edition of the AV. could have been prescribed for use by students all over India. For the Padapāṭha it is not necessary to recapitulate the whole text; foot-notes on each page giving the essential points would have been sufficient. We hope that the present edition will be soon exhausted and the

Svādhyāya-maṇḍala of Aundh will bring out a new edition of the Saṁhitā with at least the substance of the Padapāṭha.—Apart from this obvious defect, of which the editor himself is certainly more conscious than anybody else, this work is highly creditable to Pandit Śrīpādaśarmā, who, like every true scholar, is extremely modest and almost apologetic about his achievement. After examining the text at various points both regarding reading and accent I came to the conclusion that it is absolutely reliable. The short introduction is really informative and utterly unlike the curt prefatory remarks of many a modern Vedic scholar whose editorial labour consists mainly in adding the weight of his titled name to the work of press-compositors. The editor has given no description of his manuscripts, but the most important variant readings have been given in the appendix. The Paippalāda-saṁhitā has not been taken into consideration.

BATAKRISHNA GHOSH.

SĀMAVEDA-SAMHITĀ, edited by Śrīpādaśarmā with the help of many Vedic scholars on the basis of various ancient manuscripts, pp. 16+300, Aundh, Saṁ. 1996.

All that has been said above about the Aundh edition of the Atharva-veda applies also to the Sāmaveda-saṁhitā published by the Svādhyāya-maṇḍala of Aundh. The extremely complicated text of the SV. has been edited here with every mark of conscientious care, but there is no Padapāṭha. The variant readings of the Jaiminiya-saṁhitā have been given in an appendix, and there is a valuable alphabetical index to the Mantras of the SV. The editor has done well to explain in his preface *vikāra, viśeṣaṇa, abhyāsa, stobha* etc. and also to describe the Sāmavedic system of accentuation. Within the short space at his disposal he has also managed to give a brief survey of the Sāmavedic literature. He has not tried to solve the seemingly insoluble problem of the relative chronology of the two Ārcikas, but he is certainly right in what he says about the notorious discrepancy between them : उत्तरार्चिके २८७ तृचानि विद्यन्ते ; एषा मध्ये केवलं २२६ तृचानां प्रथमा ऋचः पूर्वार्चिके उपलभ्यन्ते ; अष्टाविंशत्यां ६१ तृचानां संवन्धिभ्यः प्रथमा ऋचः पूर्वार्चिके नैवोपलभ्यन्ते ; कारणं चेदमस्य यदिमाः ६१ उत्तरार्चिकयोनयः प्रातःसवने प्रयुज्यन्ते, गायत्रे च रात्रौ यीयन्ते ...यासां २२६ तृचयोनीनां यज्ञान्तरे सवनान्तरे वा प्रयोगज्ञासासामैवारभिका ऋचः पूर्वार्चिके संगृहीताः ।

It may be said without the slightest hesitation that this edition offers much more than Benfey's edition, which was hitherto the only reliable and handy edition of the Sāmaveda.

BATAKRISHNA GHOSH.

PRINCIPLES OF POLITICS, By Prof. R. C. Adhikary, published by the Indian Research Institute, 170, Maniktala Street, Calcutta. Price Rs. 8/- inland, 12sh. foreign.

It is a helpfully beautiful book written in a lucid style, revealing depth of thought, originality of research and accuracy of scholarship—a book which will be found alike useful by the lay and the academic readers. In the first book, within the brief compass of two hundred pages, the author has given us the whole of political philosophy in an attractive way. The second book gives us not only a thoroughly exhaustive study of the constitution of France, but also a remarkably correct pen-picture of a brilliant nation. The 3rd and the 4th books deal with the constitution of the U.S.A. and Germany in a masterly way. The 5th book is a comprehensive study of the constitution of England and the dominions, and the 6th book treats of the constitution of India. The last book has by no means the perfection of its predecessors. It is lucid, interesting and penetrating, but we cannot help desiring that the author had given us more of critical reflections with which the other parts of the work are replete. We congratulate both the author and the publishers on the production of this monumental work.

D. C. DAS GUPTA.

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*The Visva-Bharati Quarterly, Vol. VI. Part (New Series).*

Dārā Shikhu, III. by Bikrama Jit Hasrat.

$$\begin{aligned}
&= \frac{488' \sin K}{60 \left( \frac{488'}{p} + \frac{488' \cos K}{R} \right)} \text{ degrees} \\
&= \frac{488' \sin K}{\frac{60 \times 488'}{p} + \frac{60}{3438} \times 488' \cos K} \text{ degrees} \\
&= \frac{488 \sin K}{q + \frac{60}{3438} \cdot 488 \cos K} \text{ degree,} \quad \text{where } q = \frac{60 \times 488}{p} \\
&= \frac{488 \sin K}{q + \frac{60 \times 60}{3438} \left( \frac{8}{60} \cos K \right)} \text{ degrees} \\
&= \frac{488 \sin K}{q + 8 \cdot 8' \cos K} \text{ degrees}
\end{aligned}$$

but the second term in the denominator cannot be obtained in the form  $\frac{1}{2}$  *Kotijyā*. The maximum and minimum numerical values of the second term are 8·4 and 0 respectively.

If the Concentric (or Deferent) be taken as  $360^\circ$  and its Radius 3438', the circumference of the *Manda* Epicycle as P and its radius as p (so that  $360^\circ/P = 3438'/p$ ), from the values of q ( $60 \times 488/p$ ) given by *Laghumānasa* (col. 1) the values of p (col. 2) and P (col. 3) may be thus calculated :—

|         | 1               | 2                      | 3                             |
|---------|-----------------|------------------------|-------------------------------|
|         | $60 \times 488$ | Radius of <i>Manda</i> | Circumference of <i>Manda</i> |
|         | p               | Epicycle               | Epicycle                      |
|         | =q              | =p                     | =P                            |
| Sun     | 224             | 130' 31"               | 13° 40'                       |
| Moon    | 97              | 302' 45"               | 31° 21'                       |
| Mars    | 45              | 671' 00"               | 70°                           |
| Mercury | 100             | 365' 00"               | 38°                           |
| Jupiter | 92              | 314' 00"               | 33°                           |
| Venus   | 320             | 105' 00"               | 11°                           |
| Saturn  | 63              | 460' 00"               | 48°                           |

The Commentator, *Yallaya*, gives the measures of the *Manda* Epicycle shown above in col. 3, which lead to the values of  $q$  (col. 1) given in the *Laghumāṇasa* as the first part of *cheda*.

The measures of the *Manda-paridhi* (circumference of Epicycle for *Manda* correction) and of the *Śighra-paridhi* (circumference of Epicycle for *Śighra* correction) as given by different authors are shown in the following Tables, together with the ratios of their circumferences :—

Table of *Manda-Paridhis*

|                                 | <i>Āryyabhata</i> |                | <i>Khaṇḍakhadyake</i> and<br><i>Varāha's Sūryya-Siddhānta</i> | Modern <i>Sūrya-Siddhānta</i> |                 | <i>Brahmagupta, Śripati</i><br>and <i>Bhāskarācāryya</i> |                 |
|---------------------------------|-------------------|----------------|---|-------------------------------|-----------------|--|-----------------|
| Planets                         | Odd Quadrants     | Even Quadrants |   | At 90° or 270°                | At 180° or 360° | At 90° or 270°   | At 180° or 360° |
| <u><i>Manda-Paridhi (P)</i></u> |                   |                |   |                               |                 |  |                 |
| Sun                             | 13½°              | 13½°           | 14°   | 13°40'                        | 14°             | 13°40'(a)  | 13°40'(a)       |
| Moon                            | 31½°              | 31½°           | 31°   | 31°40'                        | 32°             | 31°36'(a)  | 31°36'(a)       |
| Mars                            | 63°               | 81°            | 70°   | 72°                           | 75°             | 70°(b)   | 70°(b)          |
| Mercury                         | 31½°              | 22½°           | 28°   | 28°                           | 30°             | 38°  | 38°             |
| Jupiter                         | 31½°              | 36°            | 32°   | 32°                           | 33°             | 33°  | 33°             |
| Venus                           | 18°               | 9°             | 14°   | 11°                           | 12°             | 9°   | 11°             |
| Saturn                          | 40½°              | 58½°           | 60°   | 48°                           | 49°             | 30°(c)   | 30(c)           |

(a) These are mean values. A complicated rule is given by the authors for the true values which vary not only for different places in the quadrant, but also for different hours of the day.

(b) Here is also a complicated rule for obtaining the true values.

(c) *Bhāskarācāryya* peculiarly gives the value as 50, which is close to *Āryyabhata's* mean value and to the other values.

Table of *Śighra-Paridhis*

| Planets                    | <i>Āryyabhata</i> |                | Modern <i>Sūrya-Siddhānta</i>                     |                | <i>Brahmagupta, Śripati and Bhāskarācāryya</i> |                |                 |
|----------------------------|-------------------|----------------|---|----------------|--|----------------|-----------------|
|                            | Odd Quadrants     | Even Quadrants | <i>Khaṇḍakhādya and Varāha's Sūryya-Siddhānta</i> | At 90° or 270° | At 180° or 360°                                | At 90° or 270° | At 180° or 360° |
| <i>Śighra-Paridhi (P')</i> |                   |                |   |                |  |                |                 |
| Mars                       | 238½°             | 229½°          | 234°  | 235°           | 232°   | 243°40'(d)     | 243°40'(d)      |
| Mercury                    | 139½°             | 130½°          | 132°  | 133°           | 132°   | 132°           | 132°            |
| Jupiter                    | 72°               | 67½°           | 72°   | 70°            | 72°  | 68°            | 68°             |
| Venus                      | 265½°             | 256½°          | 260°  | 262°           | 260°   | 258°           | 263°            |
| Saturn                     | 40½°              | 36°            | 40°   | 39°            | 40°  | 35°(e)         | 35°(e)          |

The ratios  $p : p' = P : P'$ , where  $P$  and  $P'$  are the circumferences and  $p$  and  $p'$  the radii of the *Mānda* and *Śighra* Epicycles, are given in the following Table :—

- (d) Here is also a complicated rule for obtaining the true values.  
 (e) *Bhāskarācāryya* gives the values as 40, which is closer to the other values.

| Planets | <i>Āryyabhaṭa</i> |                |  | Modern <i>Sūryya</i><br><i>Siddhānta</i> |                 | <i>Brahmagupta</i> ,<br><i>Śripati</i> and<br><i>Bhāskarācāryya</i> |                 | <i>Laghumāṇasa</i> |
|---------|-------------------|----------------|--|--|-----------------|---|-----------------|--------------------|
|         | Odd Quadrants     | Even Quadrants | <i>Khaṇḍakhādya</i> and<br><i>Varāha's Sūryya-</i><br><i>Siddhānta</i> | At 90° or 270°                           | At 180° or 360° | At 90° or 270°  | At 180° or 360° |                    |
| Mars    | 14/53             | 18/51          | 70/234   | 72/235                                   | 75/232          | 21/73   | 21/73           | 4/15               |
| Mercury | 7/31              | 5/29           | 28/132   | 28/133                                   | 30/132          | 38/132  | 38/132          | 21/100             |
| Jupiter | 7/16              | 8/15           | 32/72  | 32/70                                    | 33/72           | 33/68   | 33/68           | 3/7                |
| Venus   | 4/59              | 2/59           | 14/260   | 11/262                                   | 12/260          | 9/258   | 11/263          | 11/320             |
| Saturn  | 9/9               | 13/8           | 60/40  | 48/39                                    | 49/40           | 30/35*  | 30/35*          | 7/6                |

When  $K$  is 90° or 270°, the Equation of Centre  $E$  is given by 488/ $q$  degrees, and is for —

|         |   |     |      |   |     |   |        |
|---------|---|-----|------|---|-----|---|--------|
| Sun     | = | 488 | deg. | ÷ | 224 | = | 2°10'  |
| Moon    | = | 488 | deg. | ÷ | 97  | = | 10°51' |
| Mars    | = | 488 | deg. | ÷ | 45  | = | 5°2'   |
| Mercury | = | 488 | deg. | ÷ | 100 | = | 4°53'  |
| Jupiter | = | 488 | deg. | ÷ | 92  | = | 5°18'  |
| Venus   | = | 488 | deg. | ÷ | 320 | = | 1°31'  |
| Saturn  | = | 488 | deg. | ÷ | 63  | = | 7°45'  |

When  $K = 0^\circ$  or  $180^\circ$ ,  $E = 0$ .

(3) Illustration.—To find the *Manda* correction of the Moon, when its mean longitude is 8 s. 14° 3', the mean longitude of *Candrocca* being 0 s. 15° 44'.

\* According to *Bhāskarācāryya*, 50/40.

|   |              |
|---|--------------|
| Moon's position                             | 8 s. 14° 3'  |
| <i>Candrocca</i> ( <i>Mandocca</i> of Moon) | 0 s. 15° 44' |
| <i>Kendra</i>                               | 7 s. 28 19'  |

As the *Kendra* lies between 6 and 9 signs,

|  |     |              |
|--|-----|--------------|
| <i>Bhuja</i>                           | (+) | 1 s. 28° 19' |
| <i>Koti</i>                            | (—) | 1 s. 1° 41'  |
| Therefore, <i>Bhuja</i> jyā            | (+) | 6° 56'       |
| <i>Kotijyā</i>                         | (—) | 4° 14'       |
| Now, <i>Cheda</i>                      | =   | 97           |
| $\frac{1}{2}$ <i>Kotijyā</i>           | =   | (—) 2-7      |
| <i>Cheda</i> as corrected              | =   | 94-53        |
| <i>Bhuja</i> jyā <i>liptikṛtā</i>      |     | 416'         |
| Dividing by <i>Cheda</i> as corrected, |     |              |
| the correction is                      |     | 4° 23'       |

which is to be added to the Moon's mean longitude, because the *Kendra* exceeds 6 signs. The Moon's true longitude is therefore 8 s. 18° 26'.

The *chedas* given in verse 13 will have further uses, as we shall see later on (Verses 14, 15, 33, 34).

The *manda* correction to be applied to the daily mean *motion* of the planets —

कोटिगतिघ्नी छेदाप्तं व्यस्तं गतिकलाः फलम् ॥ १४ ॥

*koṭirgatighnī chedāpatam vyastam gatikālāḥ phalam* || 14 ||

14. Multiply *kotijyā* by the daily mean motion (in *kalās*) and divide by the *cheda* (Divisor); the result is the correction in *kalās* (minutes) to be applied to the mean daily motion, the sign of the result (or correction) being opposite to that of *kotijyā*.

Notes.—(1) The formula for the *manda* Equation of Motion (i.e. *manda* correction to be applied to the mean daily motion, as distin-



guished from that to be applied to the mean longitude as discussed before) is expressed by  $\frac{m \cdot R \cos K}{\text{Cheda}}$  kalās (minutes), where  $m$  is the daily mean motion of the planet, the Equation being positive or negative according as  $R \cos K$  is negative or positive and being therefore negative, positive, positive, negative in the four successive quadrants (because  $R \cos K$  is positive, negative, negative, positive in these quadrants).

(2) It may be observed here that this formula is true for planets other than the Moon, because, in the case of these planets, the *Mandocca* is assumed to have no motion. In the case of the Moon, however, as the *Candrocca* has a motion which cannot be neglected, the formula should be modified to  $\frac{(m - m') \cdot R \cos K}{\text{Cheda}}$  kalās (minutes), where  $m$  and  $m'$  are the mean daily motions of the Moon and its *Mandocca*.

(3) Rationale.—If  $l_1$  and  $l_2$  are the true longitudes (after *manda* correction) of a planet on two consecutive days, i.e., when the planet has passed  $t$  days and  $(t+1)$  days from the *Mandocca*, the true motion during the  $(t+1)$ th day (as corrected by *manda* operation)

$$\begin{aligned} &= m(t+1) + z - E_2 \\ &= (m \cdot t + E_1 + z) - E_2 \\ &= m + (E_2 - E_1) \end{aligned}$$

The *manda* correction to be applied to the daily mean motion is therefore  $E_2 - E_1$ .

$$\text{Since } E = \frac{R \cdot p \sin K}{R + p \cos K},$$

$$E_2 - E_1 = \frac{R \cdot p \sin K_2}{R + p \cos K_2} - \frac{R \cdot p \sin K_1}{R + p \cos K_1}$$

$$= p \left( \frac{R \sin K_2 - R \sin K_1}{R + p \cos K_1} \right), \text{ (assuming the denominator to}$$

be practically constant),

$$= \frac{p \cdot R}{R + p \cos K_1} \cdot 2 \cos \frac{K_1 + K_2}{2} \sin \frac{K_2 - K_1}{2}$$

$= \frac{(K_2 - K_1) p R \cos K_1}{R + p \cos K_1}$ , (because  $K_2$  is very nearly equal to  $K_1$ ),

$$= \frac{\{(m - m') (t + 1) - (m - m') t\} \cdot p R \cos K_1}{R + p \cos K_1},$$

(Since  $K_1 = (m - m') t$  and  $K_2 = (m - m') (t + 1)$ )

$$= \frac{(m - m') \cdot R \cos K_1}{\frac{R}{p} + \cos K_1}$$

$= (m - m') \cdot R \cos K_1 \cdot \frac{p}{R}$  (neglecting the term  $\cos K_1$  in the denominator),

$$= (m - m') \cdot R \cos K_1 \cdot \frac{p}{360}.$$

Taking the form

$$E_2 - E_1 = \frac{(m - m') \cdot R \cos K_1}{\frac{R}{p} + \cos K_1}$$

$$E_2 - E_1 = \frac{(m - m') R' \cos K_1}{\frac{R'}{p} + R' \cos K_1}, \text{ (when } R' = 8^\circ 8' = 488') \text{}$$

$$= \frac{(m - m') \cdot 448' \cos K_1}{60 \times 488' + \frac{60 \cdot 488' \cos K_1}{3438}}, \text{ (Seconds)}$$

$$= \frac{(m - m') \cdot 8^\circ 8' \cos K_1}{q + \frac{60 \times 60}{3438} \cdot 8^\circ 8' \cos K_1} \text{ (minutes)}$$

$$= \frac{(m - m') \cdot 8^\circ 8' \cos K_1}{q + 8^\circ 8' \cos K_1} \text{ (minutes) nearly.}$$

(4) As regards the sign to be attached to the correction, we have seen that

$$E = \frac{p \cdot R \sin K}{R + p \cos K}$$

or, neglecting  $p \cos K$ ,

$$E = \frac{p \cdot R \sin K}{R}$$

In either case, if we consider the denominator as practically constant,  $E$  varies as  $\sin K$ . Let us consider the four quadrants separately.

(a) When  $K$  lies between  $0^\circ$  and  $90^\circ$  (1st quadrant),  $\sin K$  is positive and increases in value, attaining maximum value when  $K$  is  $90^\circ$ . Thus  $E_2 - E_1$  varying as  $p(\sin K_2 - \sin K_1)$  is positive and  $E_2 > E_1$  numerically. But  $E$  is negative in the 1st quadrant, and therefore  $E_2 - E_1$  is negative in the 1st quadrant, in which  $R \cos K$  is positive.

(b) When  $K$  lies between  $90^\circ$  and  $180^\circ$  (2nd quadrant),  $\sin K$  diminishes numerically, and therefore  $E_2 < E_1$  numerically. But  $E$  is negative in the 2nd quadrant, and therefore  $E_2 - E_1$  is positive in this quadrant, in which  $R \cos K$  is negative.

(c) When  $K$  lies between  $180^\circ$  and  $270^\circ$  (3rd quadrant),  $\sin K$  increases numerically, and thus  $E_2 > E_1$  numerically. But  $E$  is positive in this quadrant, and therefore  $E_2 - E_1$  is positive, but  $R \cos K$  is negative.

(d) When  $K$  lies between  $270^\circ$  and  $360^\circ$  (4th quadrant),  $\sin K$  decreases numerically, and thus  $E_2 < E_1$  numerically. But  $E$  is positive in this quadrant, and therefore  $E_2 - E_1$  is negative, but  $R \cos K$  is positive.

Thus, in every quadrant,  $E_2 - E_1$ , i.e. the *manda* correction to be applied to the mean daily motion of a planet, has a sign opposite to that of  $R \cos K$ .

(5) All these results may be obtained more quickly by differentiation.

Let  $l$  = longitude of planet after it has passed  $t$  days from the *mandocca*

$$= m t + \alpha + E$$

$$= m t + \alpha - \frac{R p \sin K}{R + p \cos K},$$

$$\text{and } K = (m - m') t.$$

The negative sign is affixed to  $\sin K$ , because *Laghumānasa* as-

cribes to  $\sin K$  a sign opposite to that of modern convention. The true

motion is given by  $\frac{dl}{dt}$ .

$$\text{But } \frac{dl}{dt} = m - \frac{R p \cos K \cdot \frac{dk}{dt}}{R + p \cos K}$$

(assuming the denominator to be constant),

$$= m - \frac{R p \cos K \times (m - m')}{R + p \cos K}, \text{ (since } \frac{dk}{dt} = m - m')$$

$$= m - \frac{(m - m') \cdot 488' \cos K}{\frac{60 \cdot 488'}{p} + \frac{60 \times 60}{R} \cdot 8^{\circ} 8' \cos K}$$

$\therefore$  the Equation of Motion

$$= \frac{-(m - m') \cdot 8^{\circ} 8' \cos K}{q + (8^{\circ} 8' \cos K)} \text{ minutes (nearly)}$$

and the sign is opposite to that of  $8^{\circ} 8' \cos K$  (कोटि).

(6) The previous writers express the formula for the *manda* correction of mean motion as proportional to the tabular difference of "sines." *Muñjāla* seems to be the first writer, as pointed out by Dr. B. B. Dutt and Mr. P. C. Sen Gupta\*, to have expressed the correction as proportional to the "cosine." He must have therefore known one or other of the following two formulas :

$$(1) \sin \alpha - \sin \beta = 2 \cos \frac{\alpha + \beta}{2} \sin \frac{\alpha - \beta}{2}$$

$$(2) \frac{d}{d\theta} (\sin \theta) = \cos \theta$$

Later, *Bhāskarācārya* (1150 A.D.) expresses the formula for the correction of mean daily motion in terms of the "cosine" instead of the tabular difference of "sines."

\* P. C. Sen Gupta, *Infinitesimal Calculus in Indian Mathematics -its Origin and Development*.

To determine the *Śighra* Equation of Centre (or Position)—

कुजजीवशनिच्छेदा

युगा(४)ग्न्य(३)ग(७)हता हताः ।

तिथि(१५)शैल(७)तु(६)भिव्यासा

मूच्छने(२१)शा(११) बभुक्रयोः ॥ १५ ॥

ते दोस्त्रं शयुता शीघ्र-

च्छेदाः स्युः कोटिस्मस्कृताः । १५½ ।

ताराग्रहार्कयोः शीघ्रः

शीघ्रोच्चमितरो ग्रहः ॥ १६ ॥

*kuja-jīva-śani-cchedā yugāgnyagahatā hṛtāh |*

*tithiśailartubhirvyāsā mūrccchaneśā jñāśukrayoh || 15 ||*

*te dostrayamśayutā śīghra-cchedah syuh kotisamskṛtāh | 15½*

*tārāgrahārkayoh śīghrah śīghroccamitaro grahah || 16 ||*

15. The *chedas* ("divisors") of Mars, Jupiter and Saturn, multiplied by 4, 3, 7 and divided by 15, 7, 6 (respectively) are termed *vyāsas*; the *vyāsas* of Mercury and Venus are 21 and 11 (respectively).

15½. These (*vyāsas*), with one-third of the *bhujajyā* added thereto, and corrected by the *kotiṣyā*, become *Śighraccheda* (*Śighra* Divisors) (which are to be used in determining the *Śighra-phala* or *Śighra* Equation of Centre).

16. Of the *Tārāgrahas* (star-planets: Mars, Jupiter, Saturn, Mercury and Venus, which appear to the unaided eyes as stars) and the Sun, the quicker is to be taken as the *Śighrocca* (of the planet) and the other (i.e. the slower) as the (mean) planet.

Notes.—(1) Verses 15 and 15½ define the corrected *cheda*, which is to be used as the denominator in the process of determining the *Śighra* Equation of Centre, applying the same method as used for

determining the *Manda* Equation of Centre and as indicated in Verse 13½, namely,

भुजो लिप्तीकृतश्छेदभक्तो ग्रहफलांशकाः

(*bhujo liptikṛtaśchedabhakto grahaphalāṁśakāh*). The formula is thus expressed :—

$$E' = R \sin E' = \frac{\text{Śighra-Bhujajyā converted into liptās}}{\text{Śighra-ccheda}} \text{ degrees}$$

$$= \frac{488' \sin K'}{q' + \frac{8^\circ 8' \sin K'}{3} + 8^\circ 8' \cos K'} \text{ degrees}$$

where  $q'$  is the *vyāsa* as defined in Verse 15.

(2) The term *cheda* in Verse 15 stands for the *Manda cheda* (as defined in v. 13) before it is corrected by half *koṭijyā*. According to v. 15, the *vyāsas* ( $q'$ ) are —

| Planets | $q$<br>( <i>Manda Vyāsa</i> ) | $q'$<br>( <i>Śighra Vyāsa</i> )         |
|---------|-------------------------------|---|
| Sun     | 224                           | No <i>Śighra</i> Operation              |
| Moon    | 97                            | No <i>Śighra</i> Operation              |
| Mars    | 45                            | $\frac{45 \times 4}{15} = 12$           |
| Mercury | 100                           | $= 21$                                  |
| Jupiter | 92                            | $\frac{92 \times 3}{7} = 39\frac{1}{2}$ |
| Venus   | 320                           | $= 11$                                  |
| Saturn  | 63                            | $\frac{63 \times 7}{6} = 73\frac{1}{2}$ |

(3) The *rationale* of the rule, as before, is that  $E'$  (*Śighra* Equation of Centre) is taken equal to  $R \sin E'$ , and, taking the Concentric to be  $360^\circ$  and the radius  $R$  in minutes ( $3438'$ ),  $P'$  as the *Śighra-Paridhi* (the circumference of the *Śighra* Epicycle, compared to the Concentric) and  $p'$  the radius of the *Śighra* Epicycle on this scale,

$$R \sin E' = R \cdot \frac{P'N}{OP'} \quad (\text{See Diagram VI on page 31})$$

$$= \frac{R \cdot p' \sin K}{\sqrt{(R + p' \cos K)^2 + (p' \sin K)^2}}$$

$$= \frac{p' \cdot R \sin K}{\sqrt{R^2 + 2 p' R \cos K + p'^2}}$$

$$= \frac{p' \cdot R \sin K}{R \sqrt{1 + 2 \frac{p'}{R} \cos K}}, \quad \text{neglecting } \frac{p'^2}{R^2} \text{ as small}$$

$$= \frac{p' \cdot R \sin K}{R (1 + \frac{p'}{R} \cos K)} \text{ approximately}$$

$$= \frac{p' \cdot R \sin K}{R + p' \cos K} \text{ minutes (if } R \text{ and } p' \text{ be expressed in minutes)}$$

$$= \frac{488' \sin K}{\frac{488'}{p'} + \frac{488' \cos K}{R}} \text{ minutes}$$

$$= \frac{488' \sin K}{\frac{60 \cdot 488'}{p'} + \frac{60 \cdot 60}{3438} 8'8'' \cos K} \text{ deg.}$$

$$= \frac{488' \sin K}{q' + 8'8'' \cos K} \text{ degrees, where } q' = \frac{60 \cdot 488}{p'}$$

Now, the values of  $q$  (*Manda Cheda*) are given in v. 13, and similar values for *Śighra Vyāsa* could have been given as 12, 21,  $39\frac{1}{2}$ , 11 and  $73\frac{1}{2}$  for Mars, Mercury, Jupiter, Venus and Saturn respectively. But *Muñjāla* prefers to deduce the values for the superior planets (Mars, Jupiter and Saturn) from their corresponding values in the *Manda* operation.

$$\text{As } q = \frac{60 \cdot 488}{p} \text{ and } q' = \frac{60 \cdot 488}{p'}$$

where  $p$  and  $p'$  are the radii of the *Manda* and *Śighra* Epicycles respectively,

$$q' = q \times \frac{p}{p'}$$

and the values of  $p/p'$  (equal to  $P/P'$ ) for Mars, Jupiter and Saturn are given respectively as  $4/15$ ,  $3/7$  and  $7/6$ . The values of  $p/p'$  for Mercury and Venus seem to have been taken respectively as  $21/100$  and  $11/320$ , but, as these fractions are not so simple as the preceding three figures, the calculated figures of  $q'$  for Mercury and Venus have been given as 21 and 11.

(4) For a comparison, see the 'Tables of *Manda* and *Śighra Paridhis* according to different writers and of their ratios given in the Notes below v. 13 on pp. 42-44.

(5) The last term in the denominator is nearly  $8^{\circ}8' \cos K$  numerically and agrees with the direction in the text. This makes it all the more probable that the term *kotyardha-saṁskṛta* in v. 13 for the *Manda* operation may be an error for the term *koti-saṁskṛta*.

The second term of the formula given in the text, namely,  $\frac{1}{3} 8^{\circ}8' \times \sin K$  in the denominator, cannot be satisfactorily explained. If in the second term only of the denominator in the expression

$$\frac{p' \cdot 488' \sin K}{\frac{60.488'}{R} + p' \cdot \frac{60.60}{3438} 8^{\circ}8' \cos K}$$

$p'$  is replaced by  $(p' + cp' 8^{\circ}8' \sin K)$  to allow for the variation, for different values of  $K$ , in the radius of the *Śighra* Epicycle, as taught by other writers, without making this change elsewhere in the formula, a term  $\frac{c}{2} 8^{\circ}8' \sin 2 K$  is also obtained as a term in the denominator. But this does not agree with the text, which gives  $\frac{1}{3} 8^{\circ}8' \sin K$  (and not  $\frac{1}{3} 8^{\circ}8' \sin 2 K$ ), and the result and the method of obtaining it could not be considered as satisfactory. The sum of the first two terms in the denominator,  $q' + \frac{1}{3} 8^{\circ}8' \sin K$ , is called *spāṣṭa-vyāsa* by *Praśastidhara*, one of the commentators.

(6) The revolutions of the planets in a *Yuga* or a *Mahāyuga*, as given by different writers, are summarised below :—



Number of Revolutions in a *Yuga* or *Mahāyuga* defined by the Revolutions of the Sun

| Planets  | Aryabhata and Lalla   | Varāha's <i>Sūryasiddhānta</i> | Difference from Aryabhata | Modern <i>Sūryasiddhānta</i> | Difference from Aryabhata | <i>Brahmagupta, Śripati</i><br>and <i>Bhāskara</i> |
|--|-----------------------|--------------------------------|---------------------------|------------------------------|---------------------------|--|
| Sun  |                       |                                |                           |                              |                           |  |
| Mercury  |                       |                                |                           |                              |                           |  |
| Venus  | 4,320,000             | 4,320,000                      |                           | 4,320,000                    |                           | 4,320,000,000                                      |
| <i>Śighrocca</i> of Mars                       |                       |                                |                           |                              |                           |  |
| <i>Śighrocca</i> of Jupiter                    |                       |                                |                           |                              |                           |  |
| <i>Śighrocca</i> of Saturn.                    |                       |                                |                           |                              |                           |  |
| Moon   |                       |                                |                           |                              |                           |  |
| Moon's <i>Mandocca</i><br>( <i>Candrocca</i> ) | 57,753,336<br>488,219 | 57,753,336<br>488,219          |                           | 57,753,336<br>488,203        | — 16                      | 57,753,300,000                                     |
| Moon's Node                                    |                       |                                |                           |                              |                           | 488,105,858  |
| Mars   | 232,226               | 232,226                        |                           | 232,238                      | + 12                      | 232,311,168  |
| Mercury ( <i>Śighrocca</i> )                   | 2,296,824             | 2,296,824                      |                           | 2,296,832                    | + 8                       | 2,296,828,522                                      |
| Jupiter  | 17,937,020            | 17,937,000                     | — 20                      | 17,937,060                   | + 40                      | 17,936,998,984                                     |
| Venus ( <i>Śighrocca</i> )                     | 364,224               | 364,220                        | — 4                       | 364,220                      | — 4                       | 364,226,455  |
| Saturn   | 7,022,388             | 7,022,388                      |                           | 7,022,376                    | — 12                      | 7,022,389,492                                      |
| Civil Days                                     | 146,564               | 146,564                        |                           | 146,568                      | + 4                       | 146,567,298  |
|  | 1,577,917,500         | 1,577,917,800                  | + 300                     | 1,577,917,828                | + 328                     | 1,577,916,450,000                                  |

The revolutions for the Sun, and of the star-planets, Mars, Mercury, Jupiter, Venus and Saturn and of their *Śighroccas*, may be very briefly expressed thus (illustrating only *Āryabhaṭa's* values)—

|         |            |
|---------|------------|
| Sun     | 4,320,000  |
| Mars    | 2,296,824  |
| Mercury | 17,937,020 |
| Jupiter | 364,224    |
| Venus   | 7,022,388  |
| Saturn  | 146,564    |

if these are interpreted in the light of the rule given by *Muñjāla* in v. 16. Of the Sun and the star-planets, we find that the Sun is quicker in motion than Mars, Jupiter and Saturn, and therefore the revolutions of the Sun are to be taken as the revolutions of their *Śighroccas*, the revolutions of the mean planets being the values given for the planets themselves. But, Mercury and Venus are quicker than the Sun, and therefore the revolutions given for Mercury and Venus are to be considered as the revolutions of their *Śighroccas*, the mean motions of the planets being given by the revolutions of the Sun.

But the Rule given in the *Laghumānasa* has a deeper significance. It identifies the Sun with the *Śighroccas* of the Superior Planets (Mars, Jupiter and Saturn) and with the Mean Positions of the Inferior Planets (Mercury and Venus). A little consideration shows that this is what it should be.

Observation shows that the angular distance between the Sun and Mercury or Venus never exceeds a certain maximum, that is, as the Sun moves round the Earth (apparently), Mercury and Venus are carried with the Sun, sometimes to the East and sometimes to the West of the Sun. The Inferior Planets, therefore, make the same number of revolutions around the Earth in a *Yuga* or a *Mahāyuga* as the Sun. Hence the Sun gives the mean positions of the Inferior Planets, and the mean motion of the Sun is the same as the mean motion of the Inferior Planets.

The corrections determined by the *Śighra* operation are in every case much greater than those obtained by the *Manda* operation. The Rule says that the revolutions of the Inferior Planets imply the revolu-

tions of their *Śighroccas*, and these motions determine their true (apparent) positions, East or West of the Sun.

The positions of the Superior Planets (Mars, Jupiter and Saturn) are more influenced by the quicker motion of the Earth round the Sun than by their own slow motions. But the motion of the Earth round the Sun is the same as the apparent motion of the Sun round the Earth, and such motion of the Sun is therefore the same as the motions of the *Śighroccas* of the Superior Planets.

To determine the true daily motions of the planets (other than the Sun and the Moon), as corrected by *Śighra* operations —

व्यासं शीघ्रफलाकौश(१२)भागोनं ग्रहशीघ्रयोः ।

गत्यन्तरघ्नं ह्येदाम् त्यक्त्वा शीघ्रगतेर्गतिः ॥ १७ ॥

*vyāsam śighraphalārkaṁśabhāgonam grahaśīghrayoh |*  
*gatyantaraghnam chedāptam tyaktvā śighragatergatih || 17 ||*

17. Deduct from *vyāsa* the one-twelfth part of *śighraphala* (as determined above); multiply the result by the difference of *graha-gati* (daily motion of the planet) and *śighra-gati* (daily motion of the *śighrocca*); divide the product by the *śighra-divisor* (as determined above); deduct the quotient from *śighra-gati* (daily motion of the *śighrocca*); the difference gives the *spāṣṭa-gati* (true daily motion of the planet).

Notes.—(1) The formula for the true daily motion of a planet is thus expressed :—

*Spāṣṭa-gati* (true daily motion)

$$= m' - \frac{(m' - m) (vyāsa - \frac{R}{12})}{\text{Śighra-divisor}}$$

where  $m'$  is the mean daily motion of the *Śighrocca* and  $m$  the mean daily motion of the planet (as corrected by *manda* operation). The term *vyāsa* in the formula is identified by *Praśastidhara* as *Spāṣṭa-vyāsa*.  
(to be continued)

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## INDO-PARTHIAN DYNASTY OF VONONES

By D. R. BHANDARKAR

Years ago I fixed the order of succession among the members of the Vonones dynasty. My paper on this subject was published in *J.B.B.R.A.S.*, Vol. XX. pp. 284 and ff. Almost the whole of my view excepting the position of Maues was adopted by V. A. Smith in his paper *Z.D.M.G.*, 1906, pp. 47 and ff., though he somehow forgot to mention my name. I have now been asked by some scholars to revise my view in the light of the new coins and inscriptions that have been discovered.

Various coins bearing bilingual legends of kings such as Vonones, Spalirises, Azes etc., whose Parthian nationality is unquestionable, have been found, but the order of their succession was not satisfactorily determined till I did so more than forty years ago. Not a single coin of Vonones has yet been discovered where both the Greek and Kharōṣṭhī legends give his name. But the coins, the Greek legends of which mention the name of Vonones, and the Kharōṣṭhī, those of other personages, are not few. Now it is reasonable to infer that the ruler whose name occurs in the Greek legend on the obverse is the paramount sovereign, and the personage whose name is mentioned in the Kharōṣṭhī legend on the reverse is his subordinate; and that further if the titles in the Kharōṣṭhī legends are an exact translation of those occurring in the Greek, the latter may be taken as the Yuvarāja or heir-apparent, but if they are indicative of a subordinate rank, the ruler has to be taken as a viceroy appointed by that sovereign. The titles affixed to the name of Vonones are *Basileus Basileon Megas* which unmistakably point to his supreme power. The personages whose names are mentioned on the reverse are —(1) Spalahores, who is said to be *Mahārāja-bhrātā*,<sup>1</sup> and (2) Spalgadames, son of Spala-

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1. Spalahores on his coins calls himself *Mahārājabhrātā*. Who this mahārāja was Percy Gardner is unable to determine. But I think that, almost certainly, Spalahore was a brother of Vonones, as the latter clearly appears to be his overlord, and therefore the king whose brother Spalahores was, can be no other than Vonones. Similarly, one class of Spalirises' coins bears on the Greek obverse the legend *Basileus Adelphos Spalirises*, and on the Kharōṣṭhī reverse *Mahārāja-bhrāta Dhramiasa*. This, in my opinion is indicative of his inferior position at the time when they were struck. And as we have seen, that

hores. Spalahores and Spalgadames were therefore subordinate to Vonones.<sup>2</sup> It is also plain that during the life time of Vonones, Spalahores died and Spalgadames succeeded him to the Viceroyalty, since, in addition to the coins which bear the father's name, there are others, the reverses of which give the son's name with that of the same overlord Vonones on the obverse of their coins. Next come the coins of Spalirises which present two varieties: (1) coins bearing his name alone in both the legends, and (2) coins on which his name occurs on the obverse in the Kharōṣṭhī. The names on the reverse are: (1) Spalgadames and (2) Azes.<sup>3</sup> The first was obviously a viceroy of Spalirises, as he does not assume supreme titles. It has just been stated that Spalahores died when his overlord Vonones was alive, and that after him the viceroyship was held by his son Spalgadames. And, as a matter of fact, no coins, on which the name of Spalahores is associated with that of Spalirises, have been obtained. Vonones, therefore, having the father and the son for the viceroys, must be the earlier prince, while Spalirises, who had the son only for his viceroy, must be the later. Spalirises was therefore the successor of Vonones. The case however is somewhat different in regard to Azes who, although his name occurs in the Kharōṣṭhī reverse, assumes practically the same titles that are coupled with the name of Spalirises on the Greek obverse. We have therefore to conclude that Azes had been appointed Yuvarāja in the time of Spalirises. Similarly, the coins of Azes may be distinguished further into the two classes: (1) those which contain his name in both the legends with titles indicative of supreme power; and (2) those which bear his name in the Greek

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before Spalirises became a sovereign Vonones was the paramount ruler, it can scarcely be seriously doubted that he too like Spalahores was a viceroy appointed by and a brother of Vonones. Vonones was thus the supreme ruler, and appointed his brothers Spalirises and Spalahores viceroys to govern the provinces conquered by him, and after the death of the latter, conferred the vicereignty on his nephew, *i.e.* Spalahores' son, Spalgadames. This seems to my mind the relationship in which they stood to one another. But how Azilises, Vonones, Spalirises and Spalahores were the sons of Azes as Gardner maintains is quite inexplicable to me.

2. *N. Chr.*, 1890, pp. 136-38; Gard., pp. 98-99. A coin described by Edward Thomas and Cunningham as a joint type of Vonones and Azes is really coin of Maues. The supposed connection between Vonones and Azes thus disappears (*Z.D.M.G.*, 1906, p. 61, n. 2; Whitehead, Vol. 1. pp. 92-93.)

3. *N. Chr.*, 1890, pp. 138-39; in the notice of coin No. 7 on p. 138, the heading given is 'Spalahores and Spalgadames', but instead of Spalahores, Spalirises is wanted; Gard., pp. 100 and 102.

legend on the obverse and mention the name of Azilises in the Kharōṣṭhī on the reverse.<sup>4</sup> The first class was issued obviously when he succeeded Spalirises on the throne and was a paramount sovereign, and the second class was struck when Azilises was appointed Yuvarāja as the latter bears practically the same titles in the Kharōṣṭhī that are associated with the name of Azes. There is also a third class of coins issued by Azes, where his name occurs in the Greek legend on the obverse and that of Aśpavarman in the Kharōṣṭhī on the reverse. This point however we will consider shortly and at the proper place. The coins of Azilises are likewise of three distinct classes: (1) coins whereon his name is restricted to the Kharōṣṭhī reverse and that of Azes mentioned in the Greek obverse as just mentioned; (2) those in both the legends on which his name is given, and is coupled with the epithets of a paramount sovereign; and (3) two coins at least on which his name occurs on the obverse in the Greek legend, and that of Azes on the reverse in the Kharōṣṭhī.<sup>5</sup> The first class shows that they were issued when Azilises was the Yuvarāja during the life time of Azes, while the remaining two classes point to his supreme power. Azilises was therefore the successor of Azes and became a sovereign after his death. It has just been stated that on two coins at least the names of Azilises and Azes are found on the Greek obverse and the Kharōṣṭhī reverse respectively. This indicates that Azes was subordinate to Azilises. But this Azes must not be identified with the Azes just mentioned. We must suppose that there were two princes of that name, one the predecessor and the other successor of Azilises, and that it is not unlikely that some of the coins hitherto presumed to be issued by Azes I. were really struck by Azes II. In fact, this view of mine about the existence of the two Azeses was adopted by V. A. Smith in *Z.D.M.G.*, 1906, pp. 62 and ff., and yet, curiously enough, R. B. Whitehead has in his *Catalogue* given credit to Smith for this view.

4. *N. Chr.*, 1890, pp. 140-52 & 170; *Gard.*, pp. 73-92 & 173.

5. *N. Chr.*, 1890, pp. 153-55 & 119; *Gard.*, pp. 93-97 & 92.

6. "The first attempt to draw the line between the coinage of Azes I. and that of Azes II. is that made in my catalogue of coins in the Indian Museum, Calcutta"—so says V. A. Smith in *Z. D. M. G.*, 1906, p. 64; and yet he refers to my paper twice in the footnotes 2 on p. 53 and 2 on p. 59 and admits that it was read before *J. R. A. S. Bom. Br.*, on 19 Oct. 1899. The No. of the *J. B. B. R. A. S.*, Vol. XX, was published in 1902, whereas Smith's paper was printed in 1906 and his *Catalogue* in precisely the same year. And yet he forgot the contents of pages 285-86 of my paper where I have clearly and incontestably proved that there were two Azeses,



Whitehead however criticises this view and says that "if Azilises preceded Azes, then, following Mr. Vincent Smith, we must have Azilises I. and Azilises II. instead of Azes I. and Azes II."<sup>7</sup> That this view of Whitehead is erroneous has now been incontestably proved by the excavations carried out by Sir John Marshall at Taxila. "The existence of Azes II. which was first postulated by Mr. Vincent Smith," says Sir John,<sup>8</sup> "has not hitherto been accepted by other numismatists and historians, but Mr. Smith's view now finds corroboration in the fact that the coins of Azes II. were discovered generally, in a higher stratum than those of Azes I., and in the fact also that Áspavarman appears as *Strategos*, or Satrap of Gondophernes as well as of Azes, who manifestly cannot be identified with the first Azes, . . . . ."

It is curious that Sir John Marshall also gives credit to Smith for recognizing the two Azeses, though that view was propounded by me first and ten years before Smith published his paper in *Z.D.M.G.*, where he no doubt adopted my view, forgetting, however, to mention my name. Now the testimony adduced by Sir John Marshall on the strength of his excavations at Taxila in support of the view that there were two Azeses is incontrovertible and has now to be accepted by all numismatists and historians. There is also a second point in the above remarks of Sir John, which is of paramount interest in this connection. He informs us that there was a strategos whose name is mentioned on the reverse of the coins not only of Azes II. but also of Gondophares. This clearly shows that Gondophares succeeded Azes II. to the Indo-Parthian throne. What then happens to Maues as he appears on coins, or Moga as he appears in a copper-plate inscription? Did he precede Vonones as maintained by Gardner and Cunningham, or immediately succeed Azes II. as I contended? The line of argument which I then urged against the first view still appears to be irresistible to me. I therefore repeat here what I stated forty years ago. Such numismatists as Wilson, Von Sallet, Percy Gardner and Cunningham<sup>9</sup> have maintained that since there are two types of Maues's coins which are identical with those of Demetrius and Apollodotus, he was not much posterior to these Greek princes and must therefore be regarded as the earliest prince of this dynasty. Accordingly he has been placed about 70 B.C. by Gardner and about 100 B.C. by Cunningham. The ques-

7. Whitehead Vol. I. p. 93.

8. *A. S. I., An. Rep.*, 1912-13, p. 43.

9. *Ar. Ant.*, p. 313; Gard., Intro. p. XL; *N. Chr.*, 1890, p. 110; *Ibid.*, 1888, p. 242.

tion that we have now to consider is: "Is identity of type a sure mark of contemporaneity?" I believe that when the type of any two kings' coins is alike or even identical, it does not necessarily follow that they were contemporary or even nearly contemporary to each other. It is not unlikely that the coinage of one of those kings was in circulation in the time of the other to whom it might have suggested types for his coinage. And this, in fact, appears to be the case from the coins of Maues himself. For one type of his coins is a close imitation of coins of Apollodotus, and another an exact copy of a coin of Demetrius. And if we availed ourselves for the moment of the dates assigned by Gardner to the Greek and the Indo-Scythian Princes, there would be an interval of ninety years between Demetrius and Apollodotus and of thirty years between Apollodotus and Maues. Demetrius is thus anterior to Maues by one hundred and twenty years. This chronological difference between the Greek and the Indo-Scythian king, is, in my opinion, much less than it most probably is.<sup>10</sup> However, even if we accept it, it can scarcely be reasonably maintained that Maues was contemporary or even nearly contemporary with Demetrius. Identity of type is therefore not a sure proof of contemporaneity, and, in particular, in the case of Maues we have just seen that he cannot possibly be contemporaneous with Demetrius and Apollodotus at the same time, seeing that they were removed from each other by ninety years, and from Maues by one hundred and twenty, and thirty years at least respectively. The assertion that Maues was the first Śaka ruler, entirely based on the argument of the identity of type, thus falls to the ground.

Again, the fact that Maues's coins are confined to the Punjab<sup>11</sup> militates against the supposition that he came earlier than any member of Vonones's family. For in that case one would expect to find his coins in countries to the West and North-West of the Punjab, and not in the Punjab only, as seems to be the case with the coins of Maues. Some numismatists have tried to get over this difficulty by supposing that Maues and his hoard came into the Punjab by the Karakoram Pass<sup>12</sup>. We may however draw the attention of numismatists and

10. Gard., Intro. p. xxxiii.

11. Prof. Gardner allots an average of ten years only to every one of the Greek and Scythian kings. In times of peace every reign is assigned a period of twenty-five years. An average of eighteen years seems to be a reasonable one even for a troublous period, but I have assigned fifteen years to each reign, to err on the safe side. *N. Chr.*, 1890, p. 106.

12. Gard., Intro. p. XL.

scholars to the refutation of such a view by Cunningham, who says : "I feel quite certain that they could not have come through Kashmir by the Karakoram Pass as suggested by Prof. Gardner, as that pass instead of being open all the year round, is closed during winter and could *never* be traversed by an army even in summer"<sup>13</sup> The plain conclusion, therefore, from the fact that Maues's coins are confined to the Panjāb, that he came after Azes II., must be accepted. What Īśvaradatta was to the Kṣatrapa family of Caṣṭana,<sup>14</sup> Maues was to the Indo-Parthian family of Vonones, namely, an intruder. Like Īśvaradatta again he was an intruder for the time being only. Because, as stated above, there are coins of Stratēgos Aśpavarman, which mention once Azes II. and once Gondophares on the obverse in the Greek legend, as Sir John Marshall has assured us. This clearly shows that before long the power of Maues was upset by Gondophares and Aśpavarman.

Long ago Bühler<sup>15</sup> propounded the view that it was morally certain and that unless the contrary was proved we might safely hold that the Mathura date 72 of Śōḍāsa, the Taxila date 78 of Patika, the Takht-i-Bahi date 103 of the Indo-Parthian prince Gondophares, the Panjtar date 122 of a Gushana prince (whose name is lost), etc. were years of one and the same era. To these we may now add the Taxila date of a *Mahārāja Rājātirāja Dēva-putra Kuṣanaśa* whose name however is not specified.<sup>16</sup> What era can these dates be referred to? That is the question we have now to consider. Mr. Baij Nath Puri and myself had recently occasion to consider this matter very carefully. He drew my attention to the last of the inscriptions referred to above, wherein occur the words *ayasa asaḍasa*. I had occasion to treat of this inscription in *I.A.*, 1916, pp. 120 ff. Therein I have propounded the view that *ayasa asaḍasa* was equivalent to *ādyasya Āṣāḍhasya*, 'of the first Āṣāḍha.' I was, however, unwise to refer the date 136 of this record to the Vikrama era as others had done, and take 79 A.D. as its English equivalent. I say I was unwise, because neither in the year 79 nor in the year 78 or 80 A.D. there was any intercalary Āṣāḍha month. Nevertheless, I was much gratified to see that no less a Sanskrit scholar and epigraphist than Prof. Sten Konow accepted my interpretation of *ayasa asaḍasa* as *ādyasya Āṣāḍhasya* in *E.I.*,

13. *N. Chr.*, 1890, p. 104.

14. Rapon's *Catalogue of Indian Coins (Andhras, Kshatrapas & c.)*, Intro. pp. cxxxiii & ff.; *Bomb. Gazet.*, Vol. I. Pt. I. p. 52.

15. *Vienna Ori. Jour.*, Vol. X. p. 173.

16. *J. R. A. S.*, 1914, pp. 976-77; 1915, pp. 193 & ff.; *A. S. I., An. Rep.*, 1912-13,

Vol. XIV. p. 286. He did not, however, venture to refer the date to any era in that paper of his. But when the same inscription was published in *C.I.I.*, Vol. II. Pt. I. p. 73, I was more gratified to find that here with the help of Dr. von Wijk he was able to fix upon 52 A.D. as the English equivalent of the date 136 of that inscription. And no doubt in the year 52 A.D. came off the intercalary month of Āṣāḍha even according to Swamikannu Pillai. But Pillai's Table X clearly shows that there was an intercalary Āṣāḍha not only in 52 A.D. but also in 44, 63 and 71 A.D. The initial year of this new era was therefore not finally settled, and the matter remained still hanging. The only legitimate course of action was to wait for another similar synchronism. This synchronism was luckily furnished by the Kalawān copper plate inscription of the year 131 which was published in *J.R.A.S.*, 1932, pp. 949 ff., and which contains the expression, *ajasa Śrāvaṇasa*, which doubtless corresponds to *ajasa Asaḍasa* of the Taxila record. It was Mr. Puri who drew my attention to this synchronism. I was however astounded by the cataclystic change of view adopted by Prof. Sten Konow who not only gave up his equation of *Ayasa* with *Ādyasya* but returned to Sir John's explanation that *Aya* was the Indian form of Azes, inspite of philological difficulties to the contrary, and referred the date like him to the Vikrama era, thus making it as equivalent to 77 A.D. What was however most singular in his paper was the following passage: "If *Aya Asaḍa* means 'the first Āṣāḍha,' *Ajasa Śrāvaṇa* 'must mean the first Śrāvaṇa,' and we should have to assume an intercalated Śrāvaṇa in the year 131 and an intercalated Āṣāḍha two years later in 136. Now von Wijk has been good enough to inform me that this is impossible unless one of the years was reckoned as current, the other as elapsed. And I do not think that anybody would be prepared to maintain that such was the case." The last of these remarks is most inexplicable, namely, "And I do not think that anybody would be prepared to maintain that such was the case." As a matter of fact, however, we do know that scholars and epigraphists of unquestionable merit such as R. G. Bhandarkar and F. Kielhorn have maintained such a position. Thus R. G. Bhandarkar remarks: "From inscriptions and books we see that the Hindus' usual, not invariable, way of expressing a date is not in the year so and so, but after so many years had elapsed since such and such event took place. And in the second note given in the 'Early History of the Deccan,' I have shown that in the inscriptions there examined about two-thirds of the dates represented the year expired and one-third the year current. It should by no means be supposed that the expired year is to be understood only when a word expressive of 'having elapsed' is used. We use expired Śaka years at the present day in ordinary transactions, but

never use a word expressive of having elapsed.”<sup>17</sup> Kielhorn says practically the same thing when he treats of the Vikrama era, and says that although as a rule the Vikrama years were quoted as expired years, they were also sometimes cited as current years.<sup>18</sup> I therefore fail to understand why one of the two years referred to above may not be taken as a current and the other as an elapsed year. We can calculate accordingly with the help of Swamikannu Pillai's Table and come to the conclusion that 66 B.C. be taken as the initial year of the era, that the date 134 of the Kalawān plate may be taken as a current year giving 68 A.D. as its English equivalent during which year there was an intercalary Śrāvaṇa, and finally that the date 136 of the Taxila scroll should be taken as an expired year which accordingly becomes equivalent to 70 A.D. expired or 71 A.D. current, 71 A.D. doubtless giving the intercalated month of Āṣāḍha according to Pillai's Table X. The two synchronisms thus work concurrently to the conclusion that the era according to which the dates of the inscriptions seem to be quoted as mentioned above commences with 66 B.C.

To me, however, it is not clear why on the one hand some of the dates noted above should be taken as Vikrama years or why on the other hand they should be understood as referring to the old Śaka era.<sup>19</sup> This is confusion worst confounded. Mr. Puri, however, will,

17. *J. B. B. R. A. S.*, Vol. XVII. Pt. II. p. 84. 18. *I. A.*, Vol. XX. p. 398.

19. The Vikrama years were originally known as Kṛta years (*R. G. Bhandarkar Comm. Vol.*, pp. 187 & ff.) There was a time when I took the word in the sense of 'made', that is, invented by the astronomers (*I. A.*, Vol. XLII. p. 163), but afterwards I held the view that they were years of the Kṛta yuga (*Ibid.*, Vol. LXI. pp. 101 & ff.). The question of the origin of this era has been discussed by Prof. A. S. Altekar in *E.I.*, Vol. XXIII. pp. 48 & ff., where he has attributed it to a king named Kṛta. I have already shown that this is well-nigh impossible (*I. A.*, Vol. XLII. p. 163). As regards the Śaka era, the epigraphic evidence seems to be in favour of its having been founded in Mālwa by the overlord of Nahapāna and Caṣṭana and continued by his family. And there seems to be no sense in distinguishing the Śaka era of 78 A.D. from any 'old Śaka era of 84 B.C.' as some scholars have done. Prof. Lüders has convincingly shown that the old Parthian era commencing with 247 B.C. was not unknown to India (*D. R. Bhandarkar Vol.*, pp. 287-88). It is therefore not at all unintelligible that there should be another Parthian era, started by the Indo-Parthian family of Vonones. For the same reason we may safely assume that one Kuṣāṇa era—probably the Śaka era—was started by Wema-Kadphises, another by Kaniṣka about 128 A.D. which died a natural death, and a third by the Kuṣāṇaputras circa 248 A.D. which later came to be known as the Kalacuri era. This subject will however be discussed *in extenso* by Mr. Puri before long, with strong evidence in support of it.

I hope, go into this matter fully and systematically. What I would at the present stage remark is that this era is neither Vikrama nor Śaka but rather Indo-Parthian, as to me it appears to have been started by Vonones. The celebrated Nāsik cave inscription of Gautamīputra Sātakarni speaks of three foreign tribes, namely, Śaka, Yavana and Pahlava as having infested North India in and before his time. He is represented to have conquered them. Now, of these, Yavanas are apparently the Greeks, principally the Indo-Bactrian Greeks. Śakas surely are the members of the families of Nahapāna and Caṣṭana. But who were the Pahlavas? They seem to have been almost completely ignored by the historians. Personally I have no doubt that they are represented by the two celebrated Indo-Parthian families of Vonones and Gondophares. It is however worthy of note that in that period when there was the weltering of races and tribes, it was not unfrequently that the Yavana, Pahlava or Śaka king employed a member of one of the two other foreign tribes as his Governor or Viceroy. To quote one instance, the Gīrnar inscription of Rudradāman speaks of this Śaka sovereign having appointed the Pahlava Suviśākha, son of Kulaipa, as the viceroy of Anarta and Surāṣṭra.

It has been observed above that it is natural to suppose the date 78 of the Taxila plate as a year of the era, not started by Moga or Maues, but used in his time, that this era is in all likelihood the Indo-Parthian era, and that if we could fix upon the first prince of the Imperial dynasty to which the predecessors of Maues belonged, we should be able to find out the originator of the Indo-Parthian era. With this end in view we have determined the following order of succession of these Indo-Parthian rulers, namely, (1) Vonones, (2) Spalirises (3) Azes I., (4) Azilises and (5) Azes II. The last was followed by Maues a Śaka who was an intruder. Vonones thus appears to be the first prince of the Indo-Parthian dynasty, and hence the founder of the Indo-Parthian era. And, further if we assign an average duration of 15 years to the reign of each one of these rulers, our calculation gives the year 76 as the initial year of the reign of Maues, and the year 90 as perhaps the last year of his reign. This result fits excellently, for, in the first place, the initial year of his reign, according to our reckoning, is earlier than and hence not inconsistent with the date 78 of the Taxila plate of Patika and, secondly, his reign closes before the date 103, of the Takht-i-Bahi inscription when Gondophares was alive and ruling over the Punjab. For about thirteen years the dominions of Gondophares and Maues were conterminous with one another, and shortly before or after the year 90 Gondophares wrested the Punjab from Maues and the Śakas who had supplanted the Indo-Parthian dynasty ruling over that province. If this line of reasoning has any

weight, the Indo-Parthian era originates with Vonones. The coins of Vonones have not yet been obtained, but those of his Viceroys have been found in Arachosia, Scistan, the lower Kabul valley, and the western Punjab. To my mind it appears that the seat of Vonones's Government lay to the West and North-west of Seistan, or perhaps Parthia, and that he subjugated Seistan, Arachosia and other districts in the neighbourhood and appointed Viceroys to govern them. It was when Maues and the Śakas rose to power in the Punjab at the expense of the Indo-Parthians that Gondophares had made himself master of the provinces to the west of the Punjab, where he ruled for a pretty long time. And it was in the year 102 or perhaps a little earlier that he pounced upon the Śaka ruler of the Punjab, whosoever he was, and brought that province under the Indo-Parthian supremacy. Gondophares thus seems to have been an Indo-Parthian but belonged to a different collateral branch as is indicated by the different type of coinage issued by him and continued the supremacy of that race with Asparman as his strategos.

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# SOME INDIA OFFICE LETTERS OF THE REIGN OF

## TIPU SULTAN\*

By H. C. RAY

### INTRODUCTION

It is admitted by all scholars that the history of the region between the Tungabhadra and the Kaveri during the period roughly extending from 1734, the date of the dethronement of the Mysore prince Cham Raja, to 1799, which saw the death of Tipu Sultan, requires re-examination. In Mysore this was the period of Hindu and Muslim kingmakers who gradually usurped not only all royal powers but in the end also assumed royal titles. In the wider history of India this was largely the period of the phantom Tumurid empire (c. 1761-1803). It was one of those periods of transition which have, in Indian History, always intervened between the fall of one and the rise of another Imperial power.<sup>1</sup> This inevitable period of disruption was dominated by various aspirants for the crown of Indian Imperialism. In this period of struggle not only did the region delimited above geographically play an important role but it produced in Hyder Ali and Tipu two persons of such outstanding ability and energy that they within a short time raised the state of Mysore to a pitch of dignity and power which by general consent was once occupied by Vijayanagar in the history of South India. Politically Mysore again dominated the whole region to the south of the Kṛṣṇā. Like Vijayanagar too it could only be destroyed by a confederacy of all its enemies and that too after a severe struggle. As the complete destruction of Vijayanagar, which weakened political power in the south, helped indirectly the establishment of the Imperialism of the House of Babur and ultimately destroyed the confederates, so also the lack of political vision shown by the Nizam and the Maharattas who combined with the British to bring about the downfall of a hated rival, materially assisted the establishment of a foreign Imperialism which finally destroyed their sovereignty.

Hyder and Tipu both lived in stormy times. The records of none of the contending powers, when judged by modern conditions,

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\**Miscellaneous Letters*, Mss. Eur. F. 18/1. The "introduction" and "translation" of this paper were read before the "Modern History" Section of the 4th Session of the Indian History Congress held at Lahore in December, 1940.

1. *Dynastic History of Northern India* Ray, Calcutta University, Vol. I, P. XXXVIII,



can be said to be unsullied by any acts of treachery, deceit or dishonour. It would therefore be silly to think that either Hyder or Tipu when judged by modern standard of morals, could be regarded as entirely blameless in their tempestuous political career.<sup>2</sup> But with the passage of time it has been increasingly realised that the works of Lieut. Mackenzie<sup>3</sup> or that of Colonel Wilks<sup>4</sup> require revision in the light of new materials. They lived perhaps too close to those troublous times to have been entirely free from the heated rivalries and jealousies out of which an empire was taking gradual shape. It would be too much to expect them to be more than human. It was with considerable interest therefore that I heard from Dr. Randle, the Librarian of the India Office Library in London, that he has got a bunch of letters of the reign of Tipu Sultan in his archive. This was in August, 1939. As I was at that time very busy with my arrangements to return to India, Dr. Randle was kind enough to send them to the University Library, Calcutta through the Government of Bengal. Since my return to India in October, 1939, I have had time to go through these letters and I read a brief description of their nature and contents before the History Section of the All India Oriental conference held at Tirupati (Madras) during the Easter holidays last year.

These letters<sup>5</sup> are contained, along with some other letters and papers on different subjects, in a big volume nearly  $16 \times 12$  inches in size bound with leather at the back and corners. The papers in the collection herein noticed are of different sizes and in one case of different quality. The first sheet is about  $12 \times 7\frac{3}{4}$  inches in size : thick white paper. Contains 23 lines of writing in French including the date and signature. The second sheet, which is exactly of the same size and quality is blank except the India Office Seal dated 31 August, 1915 and the number R & R. 2111/1915. The third sheet is  $13\frac{1}{2} \times 7\frac{1}{4}$  in size ; paper rather thin and old. Quality bad ; strengthened by

2. During my historical tours in these regions, I was once told by some people at Seringapatam that Tipu was a 'martyr' and that he was really poisoned by British spies through his kitchen servants. When I drew their attention to the well known picture of Tipu fighting sword in hand standing near one of his gateways at Seringapatam, they told me that it was a false one.

3. *Sketch of the war with Tipu Sultan by Roderick Mackenzie* : Lieut. 52nd. Regiment. Calcutta, 1793. It covers the period from December 1789 to February 1792. 2 Vols.

4. *Historical Sketches of the South of India*, in an attempt to trace the History of Mysoor ; From the origin of the Hindoo Government of that State to the extinction of the Mohammedan Dynasty in 1799. By Colonel Mark Wilks, London, 1820 ; 3 Vols.

5. MSS. Eur. F. 18/1.

thin slips of gummed paper on three sides and also in one place on the 4th side and upper middle portion. It contains 27 lines of writing in what appears to be a Shikasteh variety of the Persian script. The 4th sheet is similar to the 1st and 2nd in size and quality. It contains 78 lines of writing in French, 37 lines in front and 41 lines on the back (including date and signature). The 5th, 6th and 7th sheets constitute one complete letter. Quality of paper as in the first, but the size of the sheets is uniformly  $14\frac{1}{2} \times 9\frac{1}{2}$ . The front page of the first sheet contains 22 lines in French in small hand on the left margin. The rest of the space on the right contains 19 lines of French writing and in addition in the centre a circular chronogramme containing 11 lines of writing. The characters are of various sizes. The reverse side of this sheet contains about 29 lines of writing in French. The 6th sheet contains 64 lines of French writing, 31 on the front side and 33 on the back. In addition, there are 7 lines of writing in smaller characters on the top of the left margin. The 7th sheet contains 31 lines of French writing on the front page, the reverse side being blank except the usual India Office Library Seal and no. referred to above. The 8th and the 9th sheets constitute one separate letter. The front side of the 8th sheet is similar to that of the 5th with the same chronogramme and explanatory note on the middle left margin. The rest of the left margin is blank except two lines of writing on the top. The space on the left of this margin, in addition to the chronogramme referred to above, contains 20 lines of French writing in varying types of letters. The reverse side contains 32 lines of writing in French. The 9th sheet contains 8 lines of similar writing. Its reverse side is blank except the usual India Office Seal and no. referred to above. In quality of paper these two sheets are similar to the sheets 5th-7th, but in size they are slightly smaller.

A brief summary of the contents of these papers is given below :

(I) The first sheet is the French translation of a letter written in Persian by the ambassadors (apparently of Tipu Sultan) to the Grand Vizir of the French King (apparently Louis XVI). It acknowledges the receipt of a dispatch from the French minister announcing the appointment of the royal interpreter for Oriental languages to assist the Mysore embassy in giving replies to official communications (apparently in French) and in general in the matter of negotiations with the French court. While agreeing with this arrangement, the letter politely informs the minister that the embassy has its own interpreter and that on the occasion of the royal audience discussion would proceed through the agency of this Mysore official. Further the letter requests that all letters and communica-

tions (intended for the embassy) might be drawn up in Persian (and apparently not in French). For "we shall understand them sooner." This letter is dated 28th July, 1788 at Paris.

(II) The 3rd sheet : Persian Letter : The letter is addressed to (one) Khan Sahib, the "affectionate and kind friend" of the writer. It refers to the fact that the addressee together with friends had some-time ago crossed the seas and having reached France was received with "pomp and honour" on behalf of the King (*Badshah*). This news had given great pleasure to the writer and he now expects that after having been received in audience by the King of France and after having fulfilled his objects the Khan Sahib would soon return (to India). The writer proceeds to say that he had before this written 5 or 6 letters to the addressee but has as yet received no reply. Due to his devotion and zeal for the Government of France, he was now "in the path of great danger." But he was determined to persevere in his efforts for the service of France. He was working as the *Diwan* for the King of France in whose affairs there had recently cropped up some trouble. The writer had done all he could in connection with the erection of the fortress of Sipār. Previously his brother Kandap Madley had been the *Diwān* and after his death he succeeded to the office. The General Musi Konwey<sup>6</sup> Bahadur had now taken him in his retinue and he has been presented with a *Palki*, *aftabgri*<sup>7</sup> *patta* etc. He now requested the Khan Sahib that he should persuade his majesty the King of France to grant him the formal letter of appointment (*parwānah-i-khās*) with the royal seal and signature together with the robe of honour. These, the Khan Sahib should either bring with himself or send them on a Company's ship to either General Mūsī Konwai or to M. de Morison at this place. He writes on another matter. In the days of M. Lally 50,000 rupees (*rūpiā*) had been taken (apparently) for the Company. This amount has not yet been returned. Would the Khan Sahib exercise his good offices in this matter also so that an order might be secured from his majesty for the return of the amount to one who is entitled to it? The letter closes with "respectful obeisance to Akbar Alī Khan Sahib<sup>8</sup> and to Muhammad Osman Sahib.<sup>9</sup> (The letter does not preserve any date or the name of the writer or the addressee<sup>10</sup>).

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6. General Conway, Governor of Pondicheri (1788). See Wilks, op. cit., Vol. III., P. 10.

7. Umbrella.

8. One of the three members of Tipu's embassy to the French Court in 1787-88

9. Sometimes known as Othman Khan. See Wilks, op. cit., Vol. III, p. 52. fn.

10. This possibly shows that this Persian document is not the original

(III) Translation of a Persian letter addressed to Muhammad Dervich Khan, the first ambassador of Typou Sultan, by the Diwan or Interpreter of the King at Pondicheri. In the superscription it is dated on the 17th day of Djemaziulsani, the year of the Hijra 1203<sup>11</sup>. (It appears to be rather a free French translation of the previous letter in Persian.<sup>12</sup> We are told at the end that it was) translated by order of the chief minister of the French King by the Secretary for Oriental Languages attached to the court of Versailles on 24. VII. 89.

(IV) This is a French translation of a dispatch in Persian from Typou Sultan to the Emperor of France. After the usual preliminaries, it acknowledges the receipt of two dispatches, one through the intermediary of his (Tipu's) ambassadors and the other by the hand of "the very exalted Commandant of the Ocean of your Imperial Majesty M. le Count of Macnémara"<sup>13</sup>. It then refers with thanks to the despatch by the French King of various artists and workmen with the party of the ambassadors. It then proceeds to complain of the conduct of M. de Bussy.<sup>14</sup> The letter ascribes his unsatisfactory conduct to his infirmities due to old age. It then acknowledges the receipt of the welcome news that M. de Cossigny<sup>15</sup> had been promoted to the position of Marechal de Camp by the addressee on the recommendation of the writer. The letter then refers to the mission of M. le Count de Macnémara, Commandant of the French Naval Forces in India to the Court of the writer. It next refers to the admittance to Royal audience of the artists and workmen sent by the French King. The letter then again refers to the deplorable conduct of M. de Bussy and acknowledges with thanks the renewed affirmations of friendship by the French King which was "too old and too solid" to be shaken by the English, the "universal disturber." It then refers to the French troops at Pondichery retiring to the Isle of France<sup>16</sup> and the multiplication of embassies between the two courts. At that moment, we are told, the heroes of Islam were engaged in repressing the violators of treaties (i.e. the English). The writer then requests the French King

letter. Or is it possible that such letters were sent during this period to escape detection in case letters fell into the hands of enemies?

11. Jemad-as-Sani Hijra 1203 would be approximately March 1789.

12. See above No. II.

13. See Wilks, *Op. cit.*, Vol. III, p. 64. Macnémara was received by Tipu shortly before his departure from Travancore in 1790.

14. The well known French general.

15. French Governor of Pondicheri who later on resided in Isle of France (Mauritius).

16. Island of Mauritius.

to send him 2000 French soldiers from Pondicheri and the Isle of France. The Mysore state would bear all their expenses. The letter then again refers to the visit and reception of the Count of Macnémara at the court of the writer and the mutual exchange of presents. On his return the French envoy, we are told, would give an accurate account of "our most secret thoughts." Dated 9th Chaaban, Hezira 1204. Translated on 30. I. 1791.

(V) This is the French translation of a Persian despatch from Tipu Sultan to the Count de la Luzerne, Vizir of the Emperor of France. The letter refers to the warm reception of the Mysore ambassadors at the Court of Paris. It then refers to the jealousy of the English, "who love discord" and the urgent need of 2000 French troops "ready to march under our command against the common enemy." In case this was done the adversaries of the allies would feel much discouraged. The writer relied on the support of the French Vizir to this plan. The letter then refers to some presents, the "products of our dominions" to the French minister which Tipu was sending with the Count of Macnémara. Written on 9th Chaaban, Hezira 1204. Translated on 31. I. 1791.

I am now publishing the text of the various letters and their translations. As the reading of the Persian letter is rather uncertain in a few places, and as I am not sure that the Persian text when printed would be quite correct, I am publishing a plate of the original letter. The language of the letter shows that the writer was not very learned in the Persian tongue. The style of the French letters is rather ornate and archaic and the orthography is peculiarly old in some places. In spite of my efforts to give a literal translation of the letters, I found it impossible always to strictly adhere to the letter of the text. I have taken the liberty of correcting a few mistakes, mainly of accents, in the French text.

It is my intention to comment in some detail on the importance and historical significance of the letters on some future date.\*

\*In publishing these letters I have received material assistance from a number of my friends. But for their assistance it would have been impossible for me to publish the documents so quickly, burdened as I am with many other duties. Among these I must mention the names of Dr. Batakrishna Ghosh, Father Dontaine, S. J., Prof. M. Ismail, Prof. M. Mahfuz-ul Haq, Prof. Shah Kalimur Rahaman, Prof. Ibrahimi Shibli and Mr. P. Mazumdar. I take this opportunity to thank them all for their kind assistance.

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TEXT

[illegible]



# TEXT

## I

### TRADUCTION DE LA RÉPONSE PERSANNE DES AMBASSADEURS À MONSIEUR.

À Son Excellence, le Grand Vizier, Monsieur le Ministre que le très Saint le Conserve !

Votre sublime Dépêche nous est parvenue avec M. Ruffin ; et nous avons pris connaissance de son contenu. Vous nous avez mandé que M. Ruffin avoit été choisi par Sa M<sup>te</sup> pour discuter les affaires, faire les demandes et les réponses, déterminer les négociations. Sur ce point votre choix est le nôtre ; et tous les points seront conclus par l'entremise de M. Ruffin ; mais nous avons avec nous un interprète. Ce sera par son organe que la discussion dans l'audience aura lieu. Toutes les fois que vous aurez occasion de nous honorer de vos lettres, daignez nous les faire remettre en Persan. Nous les comprendrons plutôt. A quoi serviroit une plus longue réponse ?

il n'y a point de signature. Les trois Cachets sont sur l'enveloppe ainsi que l'adresse.

Traduit par moi soussigné Secrétaire Interprète du Roy pour les Langues Orientales à Paris le 28 : juillet 1788. /.

Ruffin .

## II

خانصاحب مشفق مہربان قدردان تفضل گستر نیازمندان سلمہ اللہ تعالیٰ  
بد تمنا عہ آرہوئے مواملت کثیرالمباہجت لاتعد ولا تحصى است-مہربن ضمیر  
مائیدی گرداند-درینولا آنقدردان بامزوم صاحب نوازش فرما و با مردمان رفقاء  
بخیر و عافیت و صحت مزاج تمام باطنی منازل دریا در سال گزشتہ داخل و لایت فرانس  
گردیدند در آن وقت از طرف بادشاہ در آنجا عزت و حرمت و استقبائے تمام بان نوازش  
فرما بمل آوردہ بودند و کوائف روناد آنجا بسماعت نیازمند رسیدہ ہزاران ہزار خوشی  
و خرم گوناگون شد- و از جناب ایندی توقع و امیدواری دارم کہ آن مہربان از ملازمت  
بادشاہ فرانس حاصل نمودہ و آنچه کہ مطالبات و مقاصدات خودہا بوصول آوردہ  
و از ہمہ امورات آنجا فراغت یا فتنہ با خوشی و خرم درین حدود تشریف آرائی خواہند  
فرمود- ہمہ وقت نیازمند حاضر الوقت بودہ از ملازمت آن غریبانواز حاصل کردہ بارز و



تمنا ہامیدار۔ سابق پنج و شش خطوط نوشتہ فرستادہ ہوں۔ کاغذ مذکور نزد آن صاحب رسید یا نا رسید و صدر جواب خطوط تالے الان بوقع نیامدہ۔ نیازمند در امور سرکار پادشاہ فرانس بسیار حفاظت و آزرہ خوف کے مامورم۔ درین جا بعضے صاحبان خدمت کنندگان در سرکار پادشاہ فرانس بموجب مامورہ امر حاضر باشی می نمایند۔ بخاطر آنها خوشی و خرم بایند۔ ہمچنین دارفرمان براری آنها حاضر می باشم و بان صاحب روشنی آست و آئندہ درکار ہمارے مامورہ پادشاہ فرانس بچہ عنوان ہونہ با باشد لائق سرپرہکار و سر انجام دادن بخدمت دیوانی با تمام وجوہ لائق باشد۔ ہمہ عنوان خداوندان اینجا واضع آست۔ درین باب پیش آرم۔ بان صاحب نوشتہ ہوں و سواے این در امور پادشاہ فرانس کارہمارے ہنگامہ رودادہ ہوں۔ در آن وقت نیازمند در باب تیار نمودن قلمہ سپار سعی و کوشش و درین امور ترددات بعمل آوردہ ہوں۔ جنرل کووند موسے کزوہ بہادر برائے خدمت دیوانی فرانس کار خودن انستہ و نظر توجہات و ہر فاقست ہمارہی آو داشتہ برخوردار نیازمند کینہل پلیدے مریے نامی راجانکی و افتاب گری و پڑہ وغیرہ براحوال نیازمند مبدول می نمودہ ہونند۔ آریں معنے کارہمارے مضی مامضی اطلاع بان مہربان نمودن ضرور دانستہ ارقام نومور در آیام موسی لائے کے در کمپنی مبلغ پنجاہ ہزار روپیہ گرفتہ ہونند و تالے الان سبیل رسانیدن زرمند کورنہ نمودن و ایں معنی بان مہربان ترقیم نمودہ ہوں۔ باید کے آزرہ توجہات دلی در کمپنی مذکور در باب وصول زرسوال و جواب نمودہ حکم حضور چنان گرفتہ عنایت فرمایند کے زرمند کورنہ ہر حرکت با حق دار عاید و مرحمت گرد۔ سابق در سرکار فرانس برادر کمند مدے دیوان ہونہ۔ و ہن فوٹے آو خدمت دیوانی بنام نیازمند ثبوت گردید۔ نیازمند در امور سرکار فرانس کارروائی و سر انجام دادن بہرکار حاضر می باشم۔ لازم آنست کے قابلیت و لیاقت و دانائی نیزمند در باب کارہمارے خدمت دیوانی ہر ضرور پادشاہ فرانس ظاہر گرد۔ پروانہ خاص بامہر دسخط و معہ خلعت و تشریف آو حضور حاصل کردہ ہمراہ خودیا ہر جہاز کمپنی کے در اینجا می آید۔ آریا و خداے جہاز گفت و شنون نمودہ حوالہ ساختہ بگویند کہ این آشیانے نزد جنرال کووند موسی کزوہ بہادر یا موسی فریسی نیتانان حوالہ سازند۔ ایں احسان را ہزارہا احسان خواہم دانست و تائب گورایں معنی را فواموش تکوہم کرد۔ نیازمند بموجب فرمودن آن مہربان بعمل خواہم آرد۔ زمانہ بجز نوازش و توجہات چہ بر طراز بخدمت فیض مرتبت اکبر علی خان صاحب و محمد عثمان صاحب سلام شوق مہر آو موصوف بان

## III

TRADUCTION D'UNE LETTRE PERSANNE ADRESSÉE  
 À MOUHAMMED DERVICH KHAN 1<sup>er</sup> AMBASSADEUR  
 DE TYPOU SULTAN PAR LE DIVAN OU L'INTERPRÈTE  
 DU ROI À PONDICHERY ./.

Suscription. que cette supplique parvienne en mains propres de M. Mouhamméd Dervich Khan, Seigneur bienfaisant & Généreux envers ses serviteurs, Ambr. de l'Empereur victorieux Typou Sultan, que Dieu le Conserve !

écrit le 17 : de la lune de Djémaziulsani l'an de l'hégire 1203 ./.

Très bienfaisant Seigneur & c<sup>a</sup>,

Après vous avoir offert mes vœux et le désir, que j'ai constamment de jouir encore de la satisfaction infinie de vous voir ; j'ai l'honneur de vous notifier que votre heureuse arrivée en France, après avoir traversé les mers en très bonne santé sur le vaisseau de M. Monneron avec votre nombreux Cortège ; et la réception honorable et distinguée, qui vous a été faite par l'Empereur de France dès votre entrée sur les terres de son Empire ; tous ces détails sont déjà parvenus à notre Connaissance. Nous en avons tous ressenti ici la plus grande joie et j'ai en mon particulier demandé à l'être Suprême que vous obtinssiez bientôt une audience de ce monarque, et l'effet de toutes les instances que vous devez faire auprès de lui sur les objet de votre mission. J'espère qu'aucun ne souffrira ni difficulté ni retard et que vous reviendrez dans peu chargé d'honneurs et comblé de bienfaits. Je me flatte aussi que le Ciel me conservera pour avoir le bonheur de vous revoir.

J'ai eu déjà l'avantage de vous écrire cinq à six fois. J'ignore si mes lettres vous sont parvenues ou non ; mais il est certain que je n'en ai reçu aucune réponse jusqu'à présent.

Je suis dans une position très précaire, quant aux fonctions que je remplis ici. Je dépends absolument des officiers supérieurs. Ils me le font sentir et il faut que je n'en montre point d'humeur. Aussi ne témoigné-je jamais que zèle et soumission. Vous l'avez vu vous-même ; et à l'avenir, je serai toujours de même, quelque soit le titre, sous lequel je serai employé au service de l'Empereur de France. Tous les officiers Généraux d'ici me reconnoissent pour le Divan. C'étoit dans ce sens que je vous en avois écrit. Je vous rendois en même tems un compte fidèle de tout ce qui se passoit dans ces contrées et de mes efforts pour les dispositions relatives à la forteresse de

*Sipar*, ainsi que des oppositions, que j'avois éprouvées sur plusieurs points.

M. le Général Gouverneur C<sup>te</sup> de Canwai considérant comme sa propre affaire la nomination et le choix du Divan et m'ayant fait l'honneur de me prendre à sa suite, m'a fait accorder le Palanquin et toutes les distinctions honorifiques. Je n'ai qu'à me louer de ses bontés. C'est pour cela que je vous avois marqué que le passé devoit être oublié.

Dans le tems de M. Delally, j'avois à réclamer de la Compagnie cinquante mille roupies et depuis lors, cette somme ne m'a point été restituée. Je vous faisais également part de cette réclamation. Je vous prie de la rappeler à la Compagnie et d'en faire mention à Sa M<sup>te</sup> Impériale, de manière à ce qu'il en émane l'ordre formel que cet argent soit rendu à qui il appartient.

Mon frère m'avoit précédé dans la place de Divan et elle me fut accordée à sa mort. Je suis prêt à la remplir, comme je l'ai déjà fait, avec la plus grande activité : on ne doit point douter de mon zèle. C'est à vous de faire connoître à l'Empereur ma bonne volonté, mon expérience et mes talents pour cet emploi, et de m'obtenir un diplôme, de la propre main du Monarque, et scellé du sceau de l'Empire, ainsi que l'investiture d'honneur et le traitement pécuniaire. Vous auriez la bonté de prendre tout cela avec vous, ou de l'envoyer ici par quelque navire de la Compagnie en recommandant cet envoi au Capitaine et en l'adressant à M. le Général de Canwai ou à M. de Moranin Intendant.

Je regarderois cette faveur de votre part comme plus précieuse que mille autres et je ne l'oublierois point jusqu'au Tombeau. Je suis à vos ordres ici et je vous prie de présenter mes respects à Akbar Aly Khan et à Mouhammed Osman Khan. A quoi serviroient de plus longs détails ?./.

Traduit d'ordre de Monseigneur par moi soussigné  
Secrétaire Interprète du Roi pour les Langues Orientales à la suite de la Cour à Versailles le 24 : 7bre  
1789 ./.

Ruffin

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IV

TRADUCTION DE LA DEPECHE

PERSANNE DE TYPOU SULTAN

AU ROY

Suscription Extérieure

A L'Empereur de France

Légende Persanne et Arabe du grand Sceau  
extérieur

Chronogramme

\*N°. Les lettres de l'Alphabet arabe sont autant de signes numériques. En additionnant toutes celles, qui composent le passage cité, l'on trouve un total de 1169 (qui répond à l'année 7121 : de l'Ère-Indienne) que la Puissance de Hayder Ali commença à être reconnu dans l'Inde. Typou Sultan naquit à la même époque. Les orientaux sont fort jaloux de cette espèce de combinaisons chronogrammatiques.

L'an du monde

\*7121 :

Mon anneau est devenu supérieur  
aux Disques du Soleil et de la Lune  
depuis que ma naissance, sous le règne  
de mon père Chah Hayder Sultan, se  
trouve prédite par le passage du Coran,  
où il est dit

Je suis votre fils l'Empereur Universel-  
lement reconnu

## Légende du petit sceau intérieur

7121 :

Typou Sultan

## Suscription intérieure

\*Le mot *Roy* est conservé dans le persan.

Puisse-t-elle parvenir (cette dépêche) aux nobles regards de Sa Majesté le Très Sublime, très Auguste Souverain des climats de l'Europe, la Colonne des Monarques Glorieux, l'Empereur \**Roi* de France Louis seize, que le très haut conserve ses précieux jours !

Frontispice de la dépêche  
Un soleil portant le nom  
en chiffre de Tipou Sultan  
fils de Hayder Ali Kan

## Répétition des mêmes titres contenus dans la suscription

Avant tout nous offrons à Votre Majesté Impériale le juste tribut de notre respect et de notre haute estime, et nous nous acquitons envers Elle de toutes les obligations, que ses sentiments nous imposent.

Qu'il nous soit ensuite permis d'annoncer à Votre Majesté Impériale l'heureuse arrivée de ses nobles dépêches ; dont les expressions pleines de bonté et de générosité connoissent si bien le chemin du coeur de son ami, y pénètrent comme un parfum exquis, et lui donnent une nouvelle existence. Ces deux lettres nous sont parvenues, l'une par l'entremise de nos Ambassadeurs, et l'autre par les mains du très excellent Commandant de Mer de Votre Majesté Impériale M. le C<sup>te</sup> de Macnémara.

La plume de l'amitié semble les avoir tracés, l'oeil de l'intérêt le plus vif, les a lues avec avidité, et la perception de la reconnaissance a saisi et gardera précieusement les preuves touchantes de la bienveillance, qui caractérise chaque ligne de ces Diplômes,

“Votre Majesté nous notifie, elle même, l'expédition faite à la suite de nos Ambassadeurs d'une grande partie des artistes de différents genres que nous lui avons demandée, et l'envoy subséquent et très prochain des ouvriers dont nous avons encore besoin. Elle nous indique et le prix que nous devons mettre à ce Dépôt de l'Amitié, et le premier devoir de tous les souverains, en nous disant qu'elle considère ces françois comme ses propres enfants.

“Sa Majesté Impériale daigne nous rendre des témoignages favorables de la conduite de nos Ambassadeurs.

“Elle nous engage à n'attribuer le procédé peu mesuré, et dont nous nous étions plaints de feu M. de Bussy, qu'à son age avancé et à ses infirmités, qui dès lors commençoient à affaiblir son énergie ; explication, qui avoit été donnée de vive voix à nos Ambassadeurs.

“Elle a la bonté de nous parler de l'avancement de M. de Cossigny qui doit son nouveau grade de Maréchal de Camp à notre recommandation.

“Elle nous prévient enfin de la mission particulière auprès de nous de M. Le C<sup>te</sup> de Macnémara Commandant de ses forces navales dans l'Inde, qui avoit ordre de se rendre à notre Cour, de nous offrir de la part de Sa Majesté Impériale quelques marques de son souvenir, et de conférer avec nous sur nos intérêts respectifs.

Les Artistes et les Ouvriers françois ont été en effect admis à notre audience, et nous avons pour eux des yeux et des soins paternels, parce que nous avons compris toute la profondeur de ce que Votre Majesté Impériale nous dit à leur égard. Nous la prions d'être parfaitement tranquille sur cet article. Pleins de confiance dans ses promesses, nous en attendons les heureux effects, et l'arrivée successive de la partie de ces hommes utiles, qui doit compléter le nombre porté dans l'état cy joint.

Quelques disposés que nous fussions déjà à imputer à la vieillesse de M. de Bussy et à l'affaissement de son moral, sa conduite déplacée contraire aux intentions pures et loyales de Votre Majesté Impériale il nous a été bien doux d'en tenir l'aveu d'elle même, il a achevé notre conviction. Les fondemens de la bonne intelligence, et de l'amitié, qui règnent entre Votre Majesté Impériale et nous, sont trop anciens et trop solides pour qu'ils puissent être ébranlés par un faux mouvement de pareils esprits aussi inconsidérés, malgré les efforts de l'Anglois, ce perturbateur universel, qui, pour rompre les liens de notre union, ne cesse, pour ainsi dire, de mettre les fers au feu. Aujourd'huy surtout qu'il voit, d'une part, les troupes françoises se retirer de Pondichéry à l'Isle de France, et de l'autre, les Ambassades se multiplier entre nos deux Cours, l'injuste jalousie de notre ennemi

commun l'a porté à des voyes de fait ; mais, Graces au Très Haut, la Puissance de la maison du \**Lion de Dieu* est en état d'opposer à l'Anglois des forces nombreuses d'hommes et de chevaux, et un appareil formidable de guerre. Dans ce moment même, les héros de l'Islamisme sont lancés dans le champ de l'honneur ; et occupés à réprimer les infracteurs des traités. Cependant quelque juste que soit notre cause, n'en pas présumer est d'une sage prévoyance ; et celle ci me paroît exiger aussi impérieusement que les sentiments qui nous unissent à votre Majesté Impériale,

une marche éventuelle. Nous la supplions donc d'enjoindre formellement et dès à présent à ses Commandants de Pondichéry et de l'Isle de France que, sur notre réquisition, ils nous envoient deux mille combattants ; et de leur recommander de ne se permettre ni excuse ni délai, mais de se tenir prêts à se rendre au signal et à obéir à nos ordres. Quant aux fraix de l'expédition, et aux approvisionnements tout leur sera fourni abondamment par notre Sublime Cour, et l'expérience du passé ne leur doit laisser aucune espèce d'inquiétude sur ce point essentiel. Votre Majesté Impériale peut-etre persua... qu' aussitôt que les opérations de la Campagne seront terminées, nous serons attentifs à renvoyer avec honneur ces troupes auxiliaires à leur première destination. Au surplus la précision des ordres, que nous sollicitons, nous a paru seule capable d'assurer le succès des entreprises les plus avantageuses aux deux alliés et l'entière défaite de leurs adversaires. Nous soumettons ce plan à la sagesse et à la supériorité des lumières de Votre Majesté Impériale.

M. Le C<sup>te</sup> de Macnémara nous a remis les objects rares et précieux, que Votre Majesté Impériale lui avoit consignées pour nous, et il nous a transmis avec la même fidélité tout ce qu'elle l'avoit chargé de nous dire. Nous lui avons fait l'accueil et les honneurs qui sont dus au représentants d'un grand Monarque et à l'exemple de Votre Majesté Impériale, nous lui avons accordé la plus intime confiance. Il pourra à son retour lui rendre un compte exact de nos plus secrettes pensées.

C'est un homme de grand mérite, et un officier Général aussi habile que zélé. Il est plus propre que tout autre à remplir les vues de Votre Majesté Impériale dans l'Indostan. Les commissions importantes et délicates, que Votre Majesté Impériale pourroit lui confier dans cette partie du monde, seroient pour nous autant de nouveaux motifs de reconnaissance. La promotion de M. de Cossigny d'après

l'intérêt que nous avons témoigné prendre à son sort, nous a fait le plus grand plaisir.

Que Votre Majesté Impériale nous permette de lui faire agréer en même temps que notre réponse un léger hommage des productions de nos climats, et un foible gage de nos sentiments respectueux, dans troix bijoux et 21 *khi'lat* ou vêtements d'honneur que M. le C<sup>te</sup> de Macnémara aura celui de lui offrir en notre nom, et dont la note se trouve cy jointe. Si Votre Majesté Impériale daigne jeter un regard favorable sur ces envoy, elle mettra le comble à notre satisfaction. Nous espérons qu'elle continuera de nous honorer de ses bontés. Dans l'éloignement où nous sommes de Votre Majesté Impériale, la correspondance est un supplément à la jouissance dont nous sommes privés. Ne laissons donc échapper aucune occasion de nous entretenir au moins par lettre et par messages.

Puisse Votre Majesté Impériale jouir d'un bonheur inaltérable !

Écrit le neuvième jour de la lune de Chaaban, l'an de l'hégire 1204./.

Traduit sur l'Original Persan par moi soussigné  
Secrétaire Interprète du Roy en Langues Orientales à la suite de la Cour à Paris le 30 : Juillet  
1791./.

Ruffin

## V

Elle est sur une seule feuille écrite des deux côtés.

### TRADUCTION DE LA DÉPÊCHE PERSANNE DE TYPOU SULTAN À M. LE C<sup>te</sup> DE LA LUZERNE

Suscription extérieure

A M. Le C<sup>te</sup> de la Luzerne Vizir de l'Empereur de France. Légende Persanne et Arabe du grand sceau extérieur



## Chronogramme

\*N<sup>a</sup> les lettres de l'alphabet arabe sont autant de signes numériques. En additionnant toutes celles qui composent le passage cité, l'on trouve un total de 1169 : ce fut probablement l'an de l'hégire 1169 (qui répond à l'année 7121. de l'Ère Indienne) que la puissance de Hayder Ali commença à être reconnue dans l'Inde. Typou Sultan naquit à la même époque. Les Orientaux sont fort jaloux de cette espèce de combinaisons chronogrammatiques.

L'an du monde

\*7121 :

Mon anneau est devenu supérieur  
aux Disques du Soleil et de la Lune,  
depuis que ma naissance, sous le règne  
de mon père Chah Hayder Sultan, se  
trouve prédite par le passage du Coran,  
où il est dit

Je suis votre fils l'Empereur Universel-  
lement reconnu

## Légende du petit sceau intérieur

7121 :

Typou Sultan

Suscription intérieure

Puisse-t-elle (cette dépêche) être vue par son Excellence le très honorable, très Puissant, très estimable Seigneur l'appui de ses amis, M. Le C<sup>te</sup> de la Luzerne Vizir de l'Empereur de France que Dieu le conserve !

Frontispice de la dépêche

Un soleil d'Argent portant le  
nom en chiffre de Typou Sultan  
fils de Hayder Aly Khan

Répétition des mêmes titres contenus  
dans la suscription.

Nous avons été singulièrement satisfaits de la relation que nos Ambassadeurs nous ont faite de vos bontés, et de vos nobles procédés. Elle ne nous laisse rien à désirer sur vos dispositions ultérieures à resserrer de plus les noeuds indissolubles de l'intimité qui règne entre les deux Cours.

Cette précieuse harmonie, dont l'Univers a été le témoin, est naturellement un objet de jalousie pour l'Anglois, qui aime la discorde, et n'est occupé que du soin de l'introduire partout où il le peut. Quoique la divine Providence nous ait donné des troupes nombreuses et des moyens formidables de défense, et que les héros de l'Islamisme soient déjà en état de contenir notre ennemi commun, cependant par une sage prévoyance, et toujours fondés sur l'estime, dont Sa Majesté l'Empereur Roi de France nous honore, nous avons cru devoir le prier d'enjoindre à ses Généraux de Pondichery et de l'Isle de France qu'ils eussent à nous envoyer, au premier signal de notre part, deux mille soldats prêts à marcher sous notre commandement. Nous sommes persuadés que vous voudrés bien vous même adopter cette mesure. Sa publicité peut seule opérer les meilleurs effets pour les deux alliés et le découragement absolu de leurs adversaires ; nous comptons sur votre concours à l'exécution d'un plan, dont le succès dépend essentiellement de la précision des ordres, que vous donnerés à vos Commandants. Les avantages respectifs qui doivent en résulter pour les deux Empires n'échapperont pas à votre sagacité et à votre longue expérience, dont nous avons conçu la plus haute comme la plus juste idée. Aussi sommes nous très empressés de cultiver votre correspondance, et nous vous prions de croire que ce sera toujours avec un vrai plaisir que nous recevrons vos lettres et vos messages. Les sentiments, que vous nous avés inspirés, nous font un devoir, dont nous nous acquittons bien volontiers, de vous offrir quelques productions de nos états. M. Le C<sup>te</sup> de Macnémara aura l'honneur de vous remettre en notre nom une chaîne de diamants et de rubis et quatre *khilaat* ou vêtements d'honneur, tels qu'ils sont énoncés dans l'état descriptif cy joint. Nous apprendrons avec joie qu'ils vous sont heureusement parvenus.

Puissies vous jouir d'une prospérité inaltérable !

Écrit le 6<sup>me</sup> jour de la lune de Chaaban l'an de l'hégire 1204./.

Traduit sur l'Original Persan par moi soussigné  
Secrétaire Interprète du Roy en Langues Orientales à Paris le 31 : janvier 1791./.

# TRANSLATION

## I

### TRANSLATION OF THE PERSIAN REPLY OF THE AMBASSADORS TO MONSEIGNEUR.<sup>1</sup>

To his Excellency The Grand Vizir, the Minister, may the Exalted One (God) preserve him.

Your sublime dispatch has reached us through M. Ruffin ; and we have taken cognizance of its contents. You have informed us that M. Ruffin has been chosen by his majesty for discussing business, to question and receive answers and conduct the negotiations. On this point we accept your choice ; and all the points will be concluded through the intermediary of M. Ruffin ; but we have with us an interpreter. It will be through his agency that the discussion in the audience shall take place. Whenever you may have occasion to honour us with your letters, draw it up in Persian. We shall understand them sooner. What purpose will be served by longer replies.

\*There is no signature, the three seals are on the envelope as also the address. Translated by me—the undersigned Secretary Interpreter to the King for Oriental Languages at Paris the 28 : July 1788%

Ruffin.

## II

Khan Sahib, my affectionate and kind friend and knower of value and the spreader of favours to the humble-selves. May God keep you in peace. After unlimited and countless desires and longing for meeting you with brimful conviviality which are obviously known to

1. My lord, Your grace etc.

\*These four lines were apparently added by Ruffin and were not in the original Persian letter,

your enlightened self, you now know this much that the showerer of favours, having crossed the seas last year together with kind friends and people reached France quite safe and sound. At that time a rousing reception was given with pomp and honour on behalf of the king<sup>2</sup> to that showerer of favours (*M. Munrum*); the proceedings and incidents (of this affair) reached the ears of this humble self. I became a thousand times happy and from God I expect and hope that your kind self having obtained (audience) *for your service* of the French king<sup>3</sup> and after fulfilling whatever aims and objects you had and after finishing all those affairs with happiness and gladness you will graciously return here. At that time (my) humble self will be present there, in the service of that nourisher of the poor, (i.e., yourself) with hopes and expectations. Previously, having written 5 or 6 letters, I had sent (them); whether the above mentioned papers have reached you or not (I do not know); and the reply to those letters has not been received as yet. My humble self takes great care in the (service of the) Government of the king of France and (in consequence) is in the path of great danger. Here some of the higher officials<sup>4</sup> in the Government of the king of France in accordance with their post<sup>5</sup> make me carry out their orders. One should be happy and cheerful for their sake. As such I am always ready at their service; it is obvious to you. And in future I shall serve in any post<sup>6</sup> befitting me in the Government of the king of France. All the officers here are aware that I am working as the Diwān with all worthy means (i.e. with fervour and zeal). Previously I had also written to you about this. Besides this, some troubles have cropped up in the affairs of the king of France. At that time this humble self, in connection with the erection of the fortress of Sipār and in these troublesome affairs, exercised efforts and endeavours. The general Count Mūsī Konweh Bahadur, for the office of the Diwān of France, considering it his own affairs, has favoured me by accepting me into his companionship (retinue).<sup>7</sup> Nipal Plati Madley (?) presented me with a Pālkī and an umbrella, (*paṭṭah*)<sup>7</sup> and so on. He had showered upon my humble self favours and kindnesses. In connection with some of these past affairs, the information of which I consider it to be necessary to give you, it had been

2. *Badshah*.

3. *Badshah-i-France*.

4. Literally "officials who make others work."

5. Official position.

6. *Unwān*.

7. *Aṣṭābgri*.

written (by me). In the days of M. Lally, 50,000 rupees (*rūpiā*) had been taken for the Company; till now (there has been) found no way of getting the said amount (back). And this had been written to your good self. By way of hearty (personal !) favour, after making enquiries and answering them in the (affairs of the) said company about the realisation of the above amount and having secured the order of His majesty, the said amount may reach one who is entitled to it. Previously in the government of France (Sarkar-i-France) my brother Kandap Madley had been the Diwān and after his death the office of the Diwān was assigned to my humble self. My humble self is always prepared to do the work of the government of the king of France. It is essential that the ability, wisdom and talent of this humble self in the affairs of the office of the Diwān should be made known to His majesty, the king of France; and (that I should) obtain the royal letter of appointment<sup>8</sup> with the seal and signature together with the robe of honour. Either (bring them) with you here; or (send them) on a ship of the company coming here; (in the latter case) after having a talk with the Captain of the ship and entrusting it to him—tell him that these things may be handed over to either General Mūsī Konwai or to M. de Morison Naitatan. I shall regard this favour of yours as thousands of obligations. I shall not forget this to the last day of my life. My humble self will act according to your orders. What more can I write asking your favour. And convey my respectful obeisance to Akbar 'Alī Khān Sahib and to Muḥammad Osman Sahib.

### III

#### TRANSLATION OF A PERSIAN LETTER ADDRESSED TO MOUHAMMED DERVISH KHAN, THE FIRST AMBASSADOR OF TIPU SULTAN, BY THE DIWAN OR INTERPRETER OF THE KING AT PONDICHERI.

*Suscription* : May this prayer reach the proper hand of M. Mouhammed Dervich Khan, seigneur generous benefactor to-

8. *Parwānah-i-Khās*.

wards his servants, Ambr. of the victorious emperor Tipu Sultan, may God preserve him ! Written on the 17th day of the month of Djemaziulsani, the year of the Hizira 1203 %

Very beneficent Lord, etc.,

After having offered you my best wishes and the desire which I always have of still enjoying the infinite satisfaction of seeing you, I have the honour to notify you that your happy arrival in France, after having traversed the oceans in very good health on the boat of Monsieur Monneron with your numerous retinue and the honourable and distinguished reception which has been given to you by the Emperor of France on your arrival on the domains of his empire ; all these details have become known to us ; we have all felt great joy and I in particular have asked of the Supreme Being that you soon obtain an audience of this monarch and the good result of all the prayers, which you have to make to him on the objects of your mission. I hope that nobody will suffer either difficulty or delay and that you will come back soon charged with honours and burdened with favour. I hope also that heaven will preserve me to have the pleasure of seeing you again. I have already had the honour of writing to you five or six times. I do not know whether my letters have reached you or not, but it is certain that I have received no reply till the present moment. I am in a very precarious position. As for the functions which I fulfil here, I depend absolutely on the superior officers. They make me feel it and I dare show no resentment. Moreover I have never expressed anything but zeal and submission. You have seen it yourself and in future I shall do the same always whatever position in which I may be employed in the service of the emperor of France. All the General Officers of this place recognize me as the Divan. It was in this sense that I wrote to you. I return to you at the same time a faithful account of all that has transpired in these countries and of my efforts for the dispositions relating to the fortress *Sipar*, as well as of the opposition which I have encountered on several points.

M. the Governor General Count of Canwai considering as his own affair the nomination and selection of the Diwan and having honoured me by taking me into his retinue, has granted me the privilege of the Palanquin with all honorific distinctions. I have nothing but praise for his kindnesses. It is for this that I had remarked to you that the past should be forgotten. At the time of M. de Lally I had to claim from the Company 50,000 rupees and since then this sum has not been paid to me. I informed you also of this claim. I

beg you to remind the Company of this and to mention this to his imperial majesty in such a manner that he issues formal orders that this money be returned to whom it belongs.

My brother had preceded me in the office of the Diwan and it was granted to me on his death. I am willing to fill this office as I have done it before with the greatest energy. One should not doubt my zeal. It is for you to make known my good intentions, my experience and my talents for this office to the emperor, and to obtain for me a diploma from the hand of the monarch himself and stamped with the seal of the empire as also the investiture of honour and the pay attached (to the office). You will kindly bring all this with you or send it here by some ship of the Company recommending the consignment to the Captain and addressing it to the General de Canwai or to M. de Morassin, the Superintendent.

I would regard this favour from you as more precious than thousand others and I shall not at all forget it even to the last day of my life. I am at your service here. I pray you to present my respects to Akbar Aly Khan and to Mouhammad Osman Khan. What would be the use of still longer details.

Translated by order of Monseigneur by me the undersigned Secretary interpreter to the King for the Oriental languages attached to the Court of Versailles. 24. 7. 1789.

Ruffin

#### IV

### TRANSLATION OF THE PERSIAN DESPATCH FROM TYPOU SULTAN TO THE KING

On 4 separate folios on which there is writing on only one side.

Suscription Exterieur<sup>1</sup>

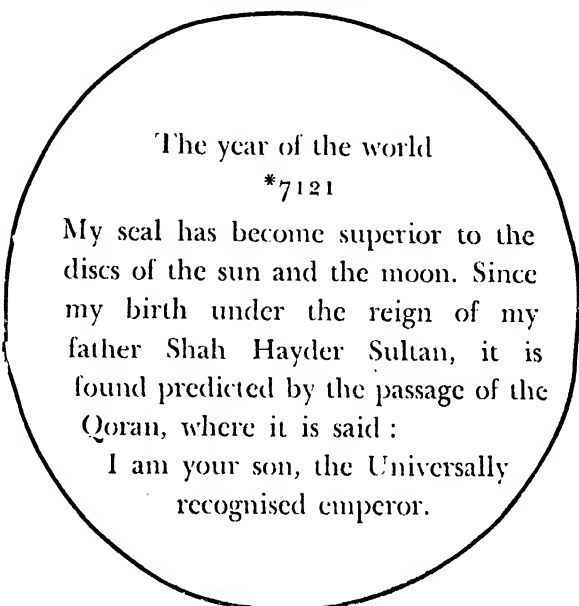
1. Address on the outer side.

TO THE EMPEROR OF FRANCE

Inscription of legend on the great outer seal  
in Persian and Arabic.

Chronogramme

\*N<sup>a</sup>. The letters of the Arabic alphabet are numeral signs as well. By adding up all those of which the cited passage is composed, one finds a total of 1169. It was probably the year of the Hegira 1169 (which corresponds to the year 7121 of the Indian era)<sup>3</sup> when the power of Hayder Ali commenced in India. Typou Sultan was born in the same epoch. Orientals are very appreciative of this sort of chronogrammatical combinations.



Legend of the small inner seal

7121

'Typou Sultan

Suscription Interieure<sup>2</sup>

May it (this despatch) arrive to the noble  
sight of his very sublime majesty, very august

2. Address inside the letter.

3. This chronology seems to follow roughly the traditional chronology of the Bible. The calculation, I am told by Mr. A. Nag, was first made by Josephus, the Jewish historian and is based on the Biblical date of the creation of the human race. Ruffin seems to be wrong in regarding this as an "Indian era."



\*The word Roy (i.e. King) has been preserved in Persian.

sovereign of the countries of Europe, the pillar of the glorious monarchs, the emperor, \*King of France, Louis XVI, may the most high (God) conserve his precious days.

### Frontispiece of the despatch

A sun bearing the name in monogramme of Typou Sultan, the son of Hayder Ali Khan. Repetition of the same titles contained in the suscription (address).

First of all we offer to your Imperial Majesty the just tribute of our respect and our high regard to whom we acknowledge all the obligations which his kindness imposes on us.

May it be permitted to ask to announce to your Imperial Majesty the happy arrival of his noble despatches, of which the expressions full of kindness and generosity know so well the way to the heart of his friend, and penetrate into it like an exquisite perfume, and give him a new life. These two letters have reached us, one through the intermediary of our ambassadors and the other by the hand of the very exalted Commander of the Sea of your imperial majesty, M. le Cte<sup>3</sup> of Macnemara.

The pen of friendship seems to have traced them, and the eye with the most lively interest has read them with avidity, and the perception of thankfulness has seized and will preserve precious the touching proofs of the benevolence which characterize every line of these diplomas.

Your Majesty notifies us that he has sent to us with the party of our ambassadors a large number of artists of different kinds we had asked of you, and the subsequent dispatch very shortly of workmen of whom we have still need. When his Majesty tells us that he considers these Frenchmen as his own children, he indicates to us both how high we must prize this relation of friendship and also what is the first duty of all sovereigns.

His Imperial Majesty deigns to render us favourable testimony to the conduct of our ambassadors. His Majesty asks us to attribute the rash way of the deceased M. de Bussy of which we had complained to his advanced age and his infirmities which had then begun to weaken his energy,—an explanation which was given by word of mouth to our ambassadors. His Majesty has the kindness to mention

to us of the promotion of M. de Cossigny who owes his new position of *Marechal de Camp* to our recommendation.

His Majesty informs us finally of the particular mission to us of M. Le Cte de Macnemara, Commandant of His naval forces in India, who had the order to present himself at our Court and to offer on behalf of his Imperial Majesty some token of his regard and to confer with us on the subject of our respective interests.

The French artists and the workmen have in fact been already admitted to our audience, and we have for them the eyes and care of a father because we have understood the full depth of what your Imperial Majesty says to us concerning them. We pray him to be perfectly at rest on this point. We have full faith in your promises and expect their happy fulfilment and the successive arrival of the party of these useful men, which should complete the number given in the inventory attached herewith.

However much we might have been inclined to excuse M. de Bussy on the ground of old age and the enfeeblement of his character, his deplorable conduct contrary to the pure and loyal intentions of your Imperial Majesty, it has been very gratifying to us to get confirmation of this from your Majesty and this has completed our conviction. The foundation of good understanding and friendship which reigns between your Imperial Majesty and us are too old and too solid to be capable of being shaken by the blunder of such inconsiderate spirits, in spite of the efforts of the English, the universal disturber, who in order to break the bond of our friendship, never cease, so to say, to put the irons into the fire. Today above all when he (the Englishman) sees on the one hand the French troops retiring from Pondichery to the Isle of France and on the other the embassies multiplying between our two courts, the unjust jealousy of our common enemy carries him to the path of action. But by favour of the Most

\*Aly on account of his courage was called *Lion* of God by Mahomet. The father of Typou Sultan was called Hayder Aly and his dynasty make use of the surname of its patron.

High the house of the \**Lion of God* is capable of arraying against the English the numerous forces of men and horses and a formidable apparatus of war. Even at this moment, the heroes of Islam have thrown themselves forward into the field of honour, and are engaged in repressing the violators of treaties. However just our course may be, foresight forbids us presumption; and this foresight demands as imperiously as the sentiments uniting us with your Imperial

Majesty that we eventually march to attack. We entreat you therefore to give formal orders at once to your Commandants of Pondichery and

the Isle of France that on our requisition they should send us two thousand soldiers ; and to recommend to them not to allow themselves any excuse or delay, but move at the first signal ready to obey our orders.

As for the cost of the expedition and the supplies, all will be furnished to them abundantly by our sublime court and the experience of the past should not leave any anxiety on this essential point. Your Imperial Majesty may rest assured that as soon as the operations of the campaign are terminated, we shall promptly send back with honour these auxiliary troops to their first destination. Moreover the precise orders which we request you to give seem to us the only way of ensuring the success of the enterprises which will be most advantageous to both the allies and lead to the complete defeat of their adversaries. We submit this plan to the sagacity and to the superior enlightenment of your Imperial Majesty.

The Count of Macnemara has submitted to us the rare and precious things which your Imperial Majesty had confided to his care for us, and he has transmitted to us with the same fidelity all that your Majesty had charged him to tell us. We have given him the reception and honour which are due to the representative of a great monarch and following the example of your Imperial Majesty we have accorded him the most intimate confidence. On his return he can give an accurate account of our most secret thoughts. He is a man of high merit, a general officer as expert as he is zealous. He is abler than any body else to fulfil the intentions of your Imperial Majesty in Hindustan. The important and delicate commissions which your Imperial Majesty might entrust to him in this part of the world would be for us as many new grounds of gratitude. The promotion of M. de Cossigny following the interest we expressed concerning him, has given us the highest pleasure.

May your Imperial Majesty permit us to offer him, along with our reply, as a modest homage of the products of our country and as a feeble expression of our respect, three jewels and 21 khilat or dresses of honour which the Count of Macnemara will have the honour of offering you in our name and a list of which is to be found enclosed. If your Imperial Majesty deigns to throw a kindly glance on this present, it will fill to the brim our cup of satisfaction. We hope that you will continue to honour us with your kindnesses. On account of the distance at which we are from your Imperial Majesty, correspondence is the only way to make up for the pleasure of meeting of which we are deprived. Let us not miss therefore any occasion of entertaining ourselves at least by letters and messages.

May your Imperial Majesty enjoy unalterable happiness,

Written on the 9th day of the month of Chaaban, the year of the Hezira 1204.

Translated from the original Persian by me the undersigned, the Secretary interpreter to the King for Oriental languages attached to the Court of Paris, the 30th January, 1791 %

Ruffin.

V

TRANSLATION OF THE PERSIAN DESPATCH FROM  
TYPOU SULTAN TO COUNT DE LA LUZERNE

Suscription Exterior

To Cte (Count) de la Luzerne, Vizir of the Emperor of France

Persian & Arabic legend of the Grand Seal  
on the outer side Chronogramme

\*N<sup>a</sup>. The letters of the Arabic alphabet are numeral signs as well. By adding up all those of which the cited passage is composed, one finds a total of 1169. It was probably the year of the Hegira 1169 (which corresponds to the year 7121 of the Indian era) when the power of Hayder Ali commenced in India. Typou Sultan was born in the same epoch. Orientals are very appreciative of this sort of chronogrammatical combinations,

The year of the world

\*7121

My seal has become superior to the discs of the sun and the moon. Since my birth under the reign of my father Shah Hayder Sultan, it is found predicted by the passage of the Qoran, where it is said :

I am your son, the Universally  
recognised emperor.

## Legend of the small seal on the Interior

7121

Typou Sultan

Suscription Interior

May this despatch be read by His Excellency the most honourable, most powerful, most estimable Lord, the support of his friends, Count de la Luzerne, Vizir of the emperor of France, may God preserve him.

## Frontispiece of the despatch

A Sun of silver bearing the name in monogramme of Typou Sultan, son of Hayder Ali Khan.

Repetition of the same titles contained in the suscription

We have been singularly satisfied with the report, which our ambassadors have submitted to us about your kindness and your noble behaviour. They leave us no room for improving on your wish to tighten more and more the unbreakable bond of friendship which exists between these two courts.

This precious harmony of which the whole universe has been witness, is naturally an object of jealousy to the English, who love discord, and are occupied only with the thought of introducing it wherever they can. Although the divine providence has given us numerous troops and formidable means of defence and although the heroes of Islam are by themselves able to check our common enemy, yet moved by a wise foresight and always relying on the esteem with which his Imperial Majesty the King of France honours us, we have thought it our duty to pray to him to order his generals of Pondichery and of the Isle of France that they should send us, at the first sign from our part, two thousand soldiers ready to march under our command. We are convinced that you yourself will be willing to adopt this measure. Its publicity can but have the best effect for the two allies and lead to the absolute discouragement of their adversaries : we rely on your support in the execution of a plan the success of which depends essentially on the precision of the orders that you will give to your commandants. The respective advantages which should result for the two empires will not escape your sagacity and your long experience, of which we have justly formed the most exalted opinion. We are also very eager to cultivate your correspondence, and we pray you to believe that it will be always with a

true pleasure that we shall receive your letters and messages. The feelings which we have for you make it a duty of which we shall willingly acquit ourselves by offering you some products of our dominions. Count of Macnéntara will have the honour of submitting to you in our name a chain of diamonds and rubies and four *Khilats* or dresses of honour, as they are mentioned in the enclosed memo. We shall be glad to hear that they have happily reached you.

May you enjoy an unalterable prosperity !

Written on the 9th day of the moon of Chaaban of the Hegira 1204.

Ruffin.

Translated from the original Persian by me the undersigned Secretary-interpreter to the King for Oriental languages attached to the Court of Paris, the 31st January, 1791 %

Ruffin.

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## ANCIENT INDIAN GEOGRAPHY

from Tibetan Blo. rca. wa. s.

By S. C. SARKAR

[Shabs. druñ., hailing from Sum. in W. Tibet, later at ordination named Ye. še. dpal. *ahbyor.*, the famous Mkhan. po. (Abbot) of *Ahbras.* spuñs. and other important Tibetan monasteries, compiled this information, between 1722 and 1747, from early medieval writings of the Indian and Tibetan scholar translators of Indian literature into Tibetan (the Blo. rca. wa. s, c. 900–1300 A.D.), and from 'the correct opinion' of other previous writers.

This geographical summary forms only a small section of Sum. pa. Mkhan. po's well known comprehensive compilation 'Dpag. bsam. ljoñ. bsañ.' (or 'Bhadra-Kalpa-druma', based on ancient and early medieval Indian and Tibetan historical and religious works), and is something like a guide pamphlet to help Buddhist monks and pilgrims from Tibet wishing to visit Buddhist places of pilgrimage in India in *his* days (i.e. 2nd quarter of the 18th century, A.D.).

It would seem from Sum. pa. Mkhan. po's description that many of the most ancient sites and monuments of early and medieval Buddhist India still survived in his days,—or at least were visible in ruins on the surface, and were not abandoned or forgotten, unfrequented by pilgrims or covered by debris and jungles beyond recognition; also that sea and land communication systems had not yet completely broken down.

This is not surprising. We know from the 'Travels of Buddhagupta (late 16th and early 17th century A.D.), a famous Buddhist ecclesiastic of Tibet hailing from Vijayanagara who was the teacher of the equally famous Tārānātha of Bengal and Tibet, that Buddhist monastic establishments continued to flourish in different parts of India (and adjacent Insulinidia from East Africa to Indo-China) as late as the time of Akbar and Jahangir. We also know that, even after the days of Tārānātha and Sum. pa. Mkhan. po., in the days of Hastings and Cornwallis, there were Bengal Buddhist monks, like Pūrṇa-Giri of Joshi-Maṭh, who were in touch with the E. I. Company, Nepal, Tibet and China, acting as agents of the Company, and that there was a Buddhist Monastery almost opposite Fort William (the Bhoṭa-Vihāra, near Śivpur), well endowed by Tibetan and Chinese gifts. It would seem as if Buddhist sites and establishments decayed finally (along with many 'Hindu' ones) in the time of Shah Jahan and Aurangzeb, and



what remained perished in the disorders and destructions filling the whole of the 18th century history.

Sum. pa. Mkhan. po.'s account is here given in *strictly literal* and therefore somewhat awkward English translation, with comments on points of interest.

### TIBETAN TEXT

Thog. mar. Rgya. gar. gyi. dgon. pa. sa. chu. groñ. khyer. sogs. gañ. dañ. gañ. du. yod. pa. śes. na. bstan. pa. bstan. *ahjin*. gañ. du. byuñ. va. śes. sla. bas. rags. cam. smos. na. |

| *Ahjam*. gliñ. gi. yul. spyi-*ahi*. gnas. *chul*. ni. |

Ri. rab. phyogs. kyi. Byañ. mthaah. *Ahjam*. bu-*ahi*. ljon. pa. nas. Lho-*ahi*. Rgya. mcho-*ahi*. bar. du. rim. par. chu. mig. stoñ. gi. chu. sde. dañ. | Śam. bha. la. dañ. | coñ. la. riñ. mo. dañ. gañs. 'Ti. se. Mcho. Ma. dros. pa. dañ. Bal. yul. dañ. | Rgya. gar. dañ. | Ri. vo. *Ahbig*s. byed. dañ. Rgya. mchor. Dha. na. Śrī-*ahi*. gliñ. phran. dañ. Dpal. gyi. rir. *Ahbras*. Spuiñs. dañ. Ri. Po. ta. la. yod. | Rgya. gar. spyir. *Ahjam*.. gliñ. *ahdi-ahi*. lho. na. yod. kyañ. ston. pas. chos. gsuñs. te. thub. bstan. thog. mar. dar. bas. chos. kyi. dvañ. du. btañ. nas. Dbus. su. bshag. pa-*ahi*. Śar. du. Li. *Ahjañ* dañ. Rgya. nag. Che. Chuñ. dañ. |

Nub. tu. O. rgyan. O.ñi. ya. na. sur. chag. dañ. | Byañ. Śar. du. Bod. dañ. Hor. yul. chen. po. dañ. | Gu. gsum. | Nub. Byañ du. Lcags. Sgo. riñ. mo. dañ. Bu. mo. gyon. ru-*ahi*. yul. sogs. dañ. | Śar. Lho. nas. Nub. kyi. bar. gyi. Rga. mchor. Gliñ. phran. rnams. dañ. | Nub. Byañ. nas. Byañ. Śar. bar. gyi. rgyab. mthar. Tho. kar. Ta. si. ka. Tu. ruk. śa. Sog. po. Ho. thon. O. ro. su. sogs. mthaah. *ahkhob*. pa. loñs. spyod. ldan. pas. bskor. va. yod. do. ||

Khyad. par. Rgya. gar. du. 'Ti. se. nas. byuñ. va-*ahi*. chu. kluñ. chen. po. Gañgā-*ahi*. Byañ. na. chu. vo. Ya. mu. nā. dañ. | Nai. rañ. ja. ni. Gañgā. la. Ma. ga. dha. nas. *ahdres*. te. | de-*ahi*. Śar. brgyud. de. Śar. Lho-*ahi*. dañ. Si. tā-*ahi*. mjug. Lo. hi. tī-*ahi*. mjug. Pakṣu. dañ. *ahdres*. nas. | Nub. kyi. dañ. Sin. dhu. Lho. Nub. kyi. Rga. mchor. *ahbab*. ser. la. | yañ. Gnās. ñer. bshi-*ahi*. nañ. chan. gyi. 'Ti. śa. ku. ni. shes. pa. Gañgā. Sin. dhu. gsum. *ahdus*. la. bsad. pa-*ahñ*. snañ. | Śar. ñe. *ahog*. tu. Bya. gag. gi. Kun. dgaah. ra. va. | Byañ. du. Gar. mkhan. mchog. || Śar. du-*ahñ*. Na. len. dra. || Lhor. Koñ. ku-*ahi*. bye. brag. Kāñcī-r. rgyal. dvañ. gcug. nor. Chos. grags. kyi. yin. | Nub. Byañ. Bcom. rlag. tu. *Ahdam*. bu. can. gyi. lha. khañ. yod. | Chos. grags. kyi. gnās. gcig. ni. Tam. bu. la. Lho. || Sañs. bskyañs. kyi. Lho-*ahi*. so. Sor. rañ. řa. | Dbus. Ma. ga. dha-*ahi*. char. gtogs. su. Rdo. rje. gdan. Nā. len. dra. O. tan. ta. pu. ri. Vi. kra. ma. la. śī. la. sogs. dgon. chen. rnams. dañ.

*Ahdul. va. Me. tog. phren. rgyud. las. | “Mñan. yod. Gnas. bcas. Cam. pa. ka. | Va. ra. ña. si. Yañs. pa. can. | Rgyal. po-ahi. khab. ni. drug. pa. ste. | De. dag. groñ. khyer. chen. po. grags.” | Shes. pa. ltar. gyi. groñ. khyer. dañ. | Byañ. phyogs. Tha. ru-ahi. brgyud. Dho. lan. Rba. ra. ha. ra. tra. sogs. dañ. | Šar. Dbus. mchams. su. Li. kha. ra. šin. ahphel. dañ. | Šar. la. gsum. las. Bāñ. ga. la. dañ. Ti. ra. hū. ti. dañ. O. di. bi. ša. sogs. Šar. phyogs. Ñi. ahog. pa. dañ. | De-ahi. Byañ. du. Bañ. ga. la. dañ. ñe. bar. Ka. ma. ru. dañ. Go. da. dañ. Ti. spu. ra. dañ. Ha. nu. ma. sogs. la. spyi. miñ. Gi. ri. va. dha. ser. va. dañ. | De. dag. gi. Šar. mtha-ahi. dañ. Spu. kham. dañ. Pa. la. ku. sogs. la. Ra. khañ. dañ. Hi. sa. va. ti. dañ. Mar. go. sogs. la. Mu. ñan. dañ. gshan. yañ. Cak. ma. dañ. Kam. po. ca. sogs. de. thams. cad. kyi. spyi. miñ. Ko. ki. ser. || Dbus. dañ. Lho-ahi. bar. du. Ahbar. ba-ahi. phug. dañ. || Rgya. mchor. ñe. va. Lhor. Ka. ña. ta. dañ. Vidya. nā. ga. ra. dañ. Koñ. Ku. na. dañ. Tu. mu. ra. ti. dañ. Dra. pa. li. dañ. Mā. lya. ra. dañ. Ti. liñ. ka-ahi. char. gtogs. Ka. liñ. ka. dañ. Kha. gan. sogs. yod. la. | Lho. phyogs. ahdi-ahi. dbyibs. gru. gsum. du. yod. pa-ahi. rce. mo. Rgya. mchor. sug. par. Ra. smi. šva. ii. yod. ciñ. rce. mo. de-ahi. Šar. phyogs. kyi. Rgya. mcho. la. Ma. he. da. rdi. dañ. Nub. kyi. Mcho. la. Ra. ta. nā. gi. ri. ser. la. ||*

*| Rgyal. bstan. de-ahi. bar. du. dar. va. ni. |*

*Ahjam. dpal. rca. brgyud. las. | “Sa. ni. rgya. mcho. gñis. mthar. thug. | ces. pas. luñ. bstan. to.” ||*

*Dbus. kyi. Va. ra. ña. si. nas. Nub. tu. Pra. yā. ka. dañ. Bcom. rlag. dañ. Ku. ra. dañ. Lña. len. dañ. A. ga. ra. dañ. Sa. ga. ri. dañ. Di. li. dañ. Mā. la. va. dañ. | gshan. yañ. Ma. ru. Di. li. Ha. la. Kaccha. sogs. yod. de. ||*

*Ahdi. dag. Lo. ccha. sogs. kyi. dag. pa. gros. ltar. bris. pa. yin. šiñ ||*

## LITERAL ENGLISH TRANSLATION

Of Ancient India the monasteries, provinces, rivers and towns, etc., wheresoever they were situated, if one wants to know,—Doctrines and Doctors wherever they flourished, if one wants to remember and learn easily,—(then here is given).

### ABOUT JAMBŪ-DVĪPA THE GENERAL INFORMATION :

In the direction of Sumeru in the Northern Border, from its Jambū forests,<sup>1</sup> down to the Ocean of the South, (there are) in a series

1. I.e., the Jambū-tree forests of Jambū-dvīpa are in its northern borderland, and beyond that is the Sumeru Range.

thousands of springs and groups (systems) of rivers. On the one hand (lie) Śam. bha. la.,<sup>2</sup> and high precipitous long-winding (mountain) passes,<sup>3</sup> the Snowy Mount Kailāsa,<sup>4</sup> and the Lake Anavatapta,<sup>5</sup> and Nepāl<sup>6</sup>; on the other (the wide plains of) India<sup>7</sup>.—The Vindhya mountains<sup>8</sup>, and in the Ocean the small island of Dhana-śrī<sup>9</sup>; and by the Śrī-Parvata, Dhānya-Kaṭaka<sup>10</sup>; and the Mount Potala.”<sup>11</sup>—India on the

2. In Tibetan works Śam. bha. la. always stands for Bāhlika (Balkh or Bactria), between the Jambū (Amū, Oxus) and the Hindu Kush.

3. These would be the Khawak, Kaoshan and other lofty passes (c. 13,000 ft.) in the Hindu Kush, crossed by Alexander's armies.

4. 'Ti. sc.'.

5. 'Mcho. Ma. dros. pa.'; i.e., Mānasa-sarovara (Māna-sarovara or Māna-saras, vern. Man-sarovar or Mān-sar); probably this is a bilingualism, as Tib. 'Mañ'=Lake; cf. 'Mañ. yul.', the Lake-land, the regions of Mansarovar Lake and the head-waters of the Indus, Sutlej and other rivers (vide, no. 21).

6. 'Bal. yul.', lit.= 'Wool-land'. It would appear that the other name of this region, 'Nepāl' (and the name of its people, 'Nevār') is really a Tibetan name, 'Gnas. bal.' = Land of Wool = 'Bal. yul.'; one name was used mostly in Trans-Himalayas, the other in Cis-Himalayas.

7. 'Rgya. gar.', more correctly 'Rgya. dkar.' = 'Wide or Great White', probably standing for an Indian name like 'Mahā-Gaud(r)a'. 'Rgya' by itself is also used for the Indian Plains, and there stands for 'Mahī', 'Urvī' or 'Prthvī', traditional geographical names for the Gangetic Plains or Bhārata. Later Tibetan commentators explain 'dkar' as referring to the white dress and turbans of Indians, but that seems far-fetched and unreal.

8. 'Ri. wo. Ahbig. byed.'.

9. 'Dhana-śrī' in the text. Some Tibetans identify it with Amarāvātī (in which case 'the small island' of the text refers to the delta of the Kṛṣṇā or the Godāvarī, called in Tamil 'Ilai-Kai' = 'small land' or islet, all deltas as well as islands generally being so called in Tamil). Others take it to be Ceylon which came to be so called owing to its effulgent riches (in which case the riches refers to the island being Kuvera's land according to the Epic, and 'the small island' of the text refers to the standard name of 'Laṅkā', a Sanskritisation of the same 'Ilai-Kai.' But it may be noted that in one passage of the Dpag. bsam. ljoñ. bsañ. the islands of 'Dhanaśrī' and of 'Simhala' are mentioned side by side in the same sentence as separate.

10. This is usually taken to be in the lower Kṛṣṇā and Godāvarī region, along with Nāgārjunī-Koṇḍa and Amarāvātī; but there was another Dhānya-kaṭaka near the Puṣpagiri and Udayagiri ruins (the site of the ancient Puṣpagiri-vihāra) in South Orissa. Cuttack (Kaṭaka) also claims to be another site of that name. The Dhānya-Kaṭaka of the text is qualified by proximity to a Hill (Śrī-parvata, a rather common name),

whole in this Jambū-dvīpa though to the South lies, (and though) the Great Teacher preached the Buddhist Doctrine in ancient times (only here), (yet) under the influence of his Dharma, Missions<sup>12</sup> were sent to and established in Central Tibet<sup>13</sup>, and to the East in Li.<sup>14</sup>, *Ahjañ*.<sup>15</sup> and China<sup>16</sup>, both Greater and Lesser<sup>17</sup>.—To the West (of India), O. rgyan., or O.ḍi. ya. na. in corrupt form;<sup>18</sup> towards the North-East,

11. There are two Tibetan interpretations: One Potala is a harbour on the Indian Ocean; the other Potala is also a harbour, but on the China Sea, not far from Shanghai,—apparently a colony from Eastern India in the extreme limits of Indo-China or in the island of Formosa. Some European scholars equate Potala with Alexander's Pātāla in Sindh (philologically unsuitable), but the two Potalas known to Tibetan sources are Mounts, i.e. harbours in mountainous coast-line, and the Potala of Indian Ocean is also close to Dhānya-kāṭaka, and is evidently a harbour [like Viagaṇatam, Viśākhāpattana] under the Eastern Ghats spurs jutting out into the Sea.

12. Or, 'under his influence Dharma Missions were sent,' etc..

13. Lit. 'the Middle Country.' The Tibetans used the analogy of India's 'madhyadeśa' in their home geography also.

14. 'Li.' ordinarily denotes Kashgar and Khotan, also called 'Kaṁsa-desa' (Li.=bell-metal=Kaṁsa); but that is to the W. of Central Tibet, and does not suit here. But a district of East Tibet on Chinese border—is also called 'Li.'

15. '*Ahjañ*.' is ordinarily='Kham' in W. Tibet; but this does not suit here; curiously, there is another 'Kham' region in East Tibet.

16. 'Rgya. nag.' = Great Black = Mahākāla; Tibetans commonly say that China was so called owing to the black dress and headgear of the people; but it seems better to take it as a translation of a lost Indian geographical name 'Mahākāla' (or equivalent),—or to take it as corrupt from either 'Rgya. nags.' = Great Forest, 'Mahāvana', 'Mahā-Kāntāra', or 'Rgya. na. ga.' = Great Pasture-land (or Meadows, Fields), 'Mahā-vraja' (M<sup>o</sup>-Vrji or M<sup>o</sup>-Vajji) or Mahā-Kṣetra.

17. This refers to Cīna proper and Mahā-Cīna or Mongolia, Manchuria, etc..

18. That is, corrupt form of 'Udyāna'; Tibetan writers therefore were aware of older classical names and later 'apabhraṁśa' forms thereof. 'O.rgyan.'='U. rgyan.' = Head-Ornament; 'Udyāna' was therefore derived by Tibetans as 'Ud-dyāna' from √dyū, to shine bright, giving the meaning of a diadem on the head; alternatively, they may have taken 'dyāna' of 'Ud-dyāna' as = 'dyūta', from the same √dyū = to delight, to play, and taken 'Ud-dyāna' to mean 'Top Dice', since 'rgyan,' also means 'dice.'

Bod.<sup>19</sup>, and the great country of Hor.<sup>20</sup>; and "the three 'Gu's.'"<sup>21</sup> To the North-West, the long-winding 'Iron Gates',<sup>22</sup> and Kas. mi. ri.<sup>23</sup>; and 'Bu. mo. gyon. ru-ahi. Yul.', etc.<sup>24</sup>.—From the South-East to the limits of the West<sup>25</sup>, (there are) small islands (or Archipelago) in the (Indian) Ocean. From the North-West to the limits of the North-

19. 'Bod.' = Tibet = Tibbat or Ti. bod. = Bsti. bod. = Bod which contains 'bsti' = the Lama's residence, or Vihāras and Ārāmas; Tib. 'bsti' has the same sense as Sans. 'vasati' or 'ā-vasatha' (vern. 'basti'). 'Bod.' as a geographical name is perhaps connected with 'Budha' of the Purāṇic legends and with the Purāṇic regional name of 'Ilā-vṛta Varṣa', the country of Budha.

20. The Tibetan name for Tartary or Mongolia; it may be compared with Purāṇic 'Hari-Varṣa.'

21. I.e., 'the 3 hill-girt districts or circles', the same as 'Mña. ri. ahkhor. gsum.', assigned to princes of the Tibetan royal families in the past; these three are: 'Gu. ge.' (= Rocky) or 'Shañ. shuñ.', 'Spu. rañs.' (Snowy,—lit. 'Roma-harṣaṇa'), and 'Mañ. yul.' (= Lake-land),—which last includes the Mānasa lakes and the sources of Indus, Sutlej and other rivers, and which Mānasa region was the birthplace of the pre-Buddhistic 'Bon' religion, founded by Gśen. rabs., the noblest of the 'Gśen', a branch of the Śākyas or Ikṣvākus (from amongst whom its supplanter, Buddhism, also arose); 'Bon' is der. from √bon. pa., to mutter mantras or recite psalms; cf. the Ind. root 'bhaṇ', to recite or chant, and the 'Bhāṇakas' or 'Bhāṇas' of sacred texts known to Buddhist literature and Inscriptions (Bharhut, etc.); 'bhaṇ' is also used of medieval religious poetry, e.g. in Vidyāpati of Mithilā.

22. These are the famous Iron Gates Passes in the Caspian region known to the Greek geographers.

23. Kāśmīra, clearly; but as it is in the Text, it means 'the Kas. mi. Hills'; probably the 'ra' of the Indian form represents 'ri' of the Tibetan, and the racial name of the men of these hill tracts was Kas or Kaś, the full phrase meaning 'the Hills of the Kas people or race'; these men would be either Khasas or 'Kassi' (or 'Kāśyapas' in Sanskritised form).

24. Lit. 'the land of the woman's (or virgin's) left horn' or 'the land of Vāmā(a)-śṛṅga', probably in Nārī-khaṇḍa (vern. Nārkaṇḍa) or Strī-rājya. This is apparently the region referred to in the Mahābhārata where the Pāṇḍavas were born. The Harivaṃśa knows of a people called 'Vāma-cūḍa's. The name Vāma-śṛṅga or Vāma-cūḍa may have originated from the 'horn headgear' of the hillmen of the Western Himalayas near about Simla Hill States and Rampur-Bashahr (in which region Nārkaṇḍa or Nārī-khaṇḍa is situated), specially of their women and brides,—and the name Strī-rājya or Nārī-khaṇḍa from the still surviving polyandric and matriarchal character of their society.

25. Since these limits refer to the Indian Ocean, therefore these islands of the South-East must mean the East Indies, and those of the West limits the

East,<sup>20</sup> and beyond that limit,<sup>27</sup> Thod. dkar.,<sup>28</sup> Ta. si. ka.,<sup>29</sup> Tu. ruk. ṣa.,<sup>30</sup> Sog. po.,<sup>31</sup> Ho. thon.<sup>32</sup>, O. ro. su.<sup>33</sup>, and other border regions, are full of rich and prosperous people.<sup>34</sup>

islands of Socotra, Zanzibar, Reunion and Mauritius, and the Seychelles group, if not Madagascar; but if East Indies can be called 'small islands', Madagascar need not be excluded; besides the Tib. phrase 'small islands' can also be translated 'small lands' = islands. This description perhaps indicates that from East Africa to East Indies all the islands were regarded in the days of medieval Tibetan writers as belonging to India; Cf. Buddhagupta's East African and East Indies travels.

26. These limits refer to the N. W. and N. E. boundaries of Jambū-dvīpa (from Oxus to Brahmaputra).

27. I.e., behind the first belt of adjacent countries there are other regions also known.

28. The text has 'Tho. kar.' wrongly. Thod. dkar = White Head or Turban; Hiuen-Tsang mentions this; probably it represents 'Śveta-dvīpa' of Purāṇic geography.

29. Also written in Tib. as 'Stag. gsig.' = tiger-leopard or 'Citra-Vyāghra.' Tibetans used this name (=Tājik) for Persia and adjacent western countries like Arabia.

30. The land of the Turks; either Manchuria, or Turkey (in Asia and in Europe) may be intended,—the former if the author is repeating ancient geography, the latter if he is adding early 18th century knowledge. Western and Eastern 'Turkestans' of modern geography are *not* intended, as these are covered in the text by 'Sog. po.' and 'Ho. thon.'.

31. Also called 'Sog.' (=Śaka); apparently Śakadvīpa or Sogdiana; often regarded in Tibet as equivalent to or neighbouring 'Hor.' (vide *ante*), 'Maga' or 'Makha' (=Mongol) countries.

32. Same as 'Kho. tan.' or 'Gu. tan.' corrupt from 'Gu. brtan.' = wide region, or permanent fixed abode. Probably this represents the 'Dhruva-loka' of Purāṇic geography. It is curious to reflect that a stepmother's persecution drove Aśoka's son Kuṇāla to find a quiet kingdom in the same Khotan where ages ago another stepmother queen impelled Uttānapāda's son Dhruva to seek refuge; it shows that Khotan is a part of India traditionally, an outpost receiving periodical settlements.

33. Tibetan form of Russia. It is possible that the Russ or Russi people were immediate North-Western Asiatic neighbours of Tibetans in the middle ages, kindred to the 'Sog.' or the 'Hor.'. In this connection I may point out that there is a fair sprinkling of Lithuanian and Slavonic roots among Tibetan ones.

34. This description of prosperity would hold good of Persia, Turkey,

In detail,—Towards India (flows) from Kailāsa originating,<sup>35</sup> the great deep river Gaṅgā, and by its North<sup>36</sup> the river Yamunā. The Nairāñjanī into the Gaṅgā from Magadha joins<sup>37</sup>; of that (junction)<sup>38</sup> going *via* the East and also the South-East, the Sitā<sup>39</sup> (flows) beyond, beyond that the Lohitī<sup>39</sup>, and beyond that the Pakṣu<sup>39</sup>,—(all) joining

Samarkand, Khotan (within China) and Russia (Asiatic as well), in the first quarter or half of the 18th century when Sum. pa. Mkhan. po. compiled this account. The word for 'border' may also be translated as 'pagan,' 'non-Buddhistic,' or 'barbarian.'

35. Tibetans should be credited with knowing something about Upper and Trans-Himalayan geography; when they say the Ganges originates in Kailāsa, they probably mean that the cluster of snow-clad peaks and the glaciers fed from them which form the sources of the Ganges, form part of the Kailāsa mountain range or system.

36. I.e., towards the sources; the lower courses being different.

37. It is to be noted that from the medieval monk pilgrim's point of view, after Yamunā the next important tributaries of the Gaṅgā are given as Nairāñjanī, Sitā, Lohitī and Pakṣu, and others are omitted; i.e. Mathurā, Kauśāmbī, Magadha and Bāṅgāla regions are contemplated pre-eminently.

38. This junction would be at Pāṭaliputra, to its East, where the Pun-pun at present falls into the Ganges; the Pun-pun represents the old joint bed of the Nairāñjanī (Phalgū) and the Śoṇa.

39. The direction, going down the Ganges East and then South East, indicates that these 3 rivers flowing into the Ganges belong to the Bengal river system, and this is confirmed by the inclusion of the Lohitī or Brahmaputra, which in earlier times fell into the Ganges much lower down than at present (near Tripurā district). I accordingly take the Sitā (the White River,—cf. the Red River Lohitī) to be the same as the river Dhavalā, Dhavala-śrī [or Dhaleśv(śś)arī in corrupt form], which flows into the Ganges below Dacca. [It should be noted that this town is on the Buṛī-Gaṅgā, the ancient bed of the Ganges]. The other river Pakṣu therefore has to be sought amongst the Lakṣā, Meghnā or Surmā (which is the upper stream of the Meghnā). Pakṣu may be a short form of Kāka-pakṣa or raven-black, referring to the dark waters of either the Meghnā [=Meghaghanā, Cloud-dark] or the Lakṣā (also called Sital-lakṣā, prob. corr. for Asitalakṣā, Black-looking or Dark-Beauty),—both in marked contrast (at the junctions) with the creamy waters of the Dhaleśvarī or the Padmā (Gaṅgā). These East Bengal rivers are particularly mentioned in the Tibetan Buddhist account next to the Nairāñjanī (by Vajrāsana and Pāṭali), because the famous Buddhist centre of Suvarṇagrāma (Sonārgāon), which flourished under the Candra Dynasty, was situated in this region, and other centres like Ca. ṭi. ga. ma [Śaṭi-grāma or Śaṣṭi-grāma, 60-villages (cf. Saptagrāma), or the Settlement of the goddess Śaṣṭhī

(the Gaṅgā) together.—In the (direction of the) West, the Sindhu<sup>40</sup> into the South-Western Sea flows, *it is said ; on the other hand*, within the area of 'the 24-Districts'<sup>41</sup>, at Ti. śa. ku. ni.<sup>42</sup> by name, Gaṅgā and

or Ṣaṭ-Kṛtikā,—mod. Chittagong], also a Candra capital, and Na. len. dra. of the East (distinct from 'Nālanda,' probably in Dacca district), were to be reached through this region,—as also the Buddhist kingdoms further to the East (*vide infra.*). Cf. 'the Blue River' along which the traffic flowed from Lakhnauti to the capital of Baṅgāla in the days of Ibn Batuta (Gibbs' Trans., 271), which obviously refers to the dark Meghnā or Pakṣu [The capital must have been either Sonārgāon or Chittagong].—Pakṣu or Vakṣu, apart from being a name for the Jambū or Oxus river, is also known to lexicons to be the name of a tributary of the Ganges. Lohitī is still the form prevalent in Assam (not Lauhitya).

40. From what follows it is clear that our author is taking Sindhu to be the same as Sarasvatī; he is correct in a sense, since in Vedic literature the two names are sometimes used of the same river. He is referring to the well-known controversy about the course of the ancient Sarasvatī; the earliest geographical and religious tradition is that G.<sup>o</sup>, Y.<sup>o</sup> and S.<sup>o</sup>. converge at Prayāga (Yukta-venī) and separate again at Trivenī (Mukta-venī) before reaching the sea; later on in historical times the Sarasvatī changed its course owing to raising of the surface between the Y.<sup>o</sup>. and the S.<sup>o</sup>., and joined the Indus system; still later, owing to further geographical changes, its bed became dry from 'Vinaśana' onwards. Our author prefers the orthodox paṇḍits' point of view ['it is said' *versus* 'it is explained by sages'], and includes the Trivenī of the South in his guide book.

41. 'Gnas. ñer. bshi.', '24-regions, or districts, or subdivisions'; evidently the district of '24-Parganās' is meant, for 'the Trivenī' is said to be within its area, and it is generally Lower Bengal that is being referred to in the text here. The question arises whether the regional name of '24-Parganas' had come to be used in the time of the Lo. ca. wa. s (900-1300 A.D.) from whom our author has compiled this account,—or even in his own time (1722-'47). It is not impossible, since the capital city of Baṅgāla, Cāṭīgrāma, was known as such to both the early Muslim and European writers as also to the Tibetan works of the middle ages. It is known that at the time when the East India Company was acquiring zemindary rights of a number of villages in Lower Bengal, the area known as 24-Parganas was there; so Sum. pa. Mkhan. po's reference to it at a slightly earlier date (c. 1722) is quite possible. But he is all along following the early medieval Indian tradition in his descriptions, and assumes that medieval place names and sacred sites still exist in his time more or less intact, so as to be readily recognisable by contemporary Tibetan pilgrims of the early 18th century. It is therefore probable that the name '24-Parganas,' i.e. '24-Pragaṇas' (24 circles of 100 gaṇas or village-communes) came down to us from at least the Gupta



Sindhu, these three<sup>43</sup>, are mixed together, (*thus*) it is explained by sages<sup>44</sup> To the East (of this place) near below<sup>45</sup> is the Karaṇḍārāma.<sup>45</sup>

period when 'gaṇas' still existed, through the Pāla period (characterised by democratic features). Bengal was a stronghold of 'gaṇa'-tantra, as is shown by the reference to the Sam-Vaṅgiyas in the Mahasthan Mauryan inscription and to their federal capital at Puṇḍravardhana; that is why kings were sometimes elected here; village communities of the Prāci were 'gaṇas', and a natural administrative institution would be the 'Pragaṇa', in later vernacular 'Perganaḥ.' Sher Shah was a 'national' King in the sense that in his revenue reforms (as in other measures) he hailed back to the early Hindu traditions and made the 'Pragaṇa' the basis of his revenue divisions.

42. Elsewhere in his work (towards the beginning) our author mentions this place in a more correct form, 'Tri. śa. ku. ni.', and explains this by the qualification 'gsum. ahdus.' = '3-saṅgama' or '3 rivers in one', i.e., 'Trivenī'. 'Trīśakuni' lit. means 'three birds,' evidently referring to the 3 swift-flowing rivers coursing through the wide expanse of the alluvial plains like birds through the sky; the metaphor is true Vedic, and we are reminded of Vedic rivers described as 'suparṇā'. Just as 'veṇī' (not so much 'plaits of hair' as 'lovers', or 'wooers', i.e. of the Sea, 'Apām Napāt': cf. Vedic description of the 3 rivers, G.<sup>o</sup>, Y.<sup>o</sup> and S.<sup>o</sup> as lovers of Apām Napāt) designates the river swiftly rushing forth, so also does 'śakuni' (cf. 'suparṇā'); the synonym 'vihagā' (bird, flowing through wide expanse) has also the same sense of swift-flowing river. It is interesting to note that the 'Trivenī-saṅgama' referred to by our author here still exists as a place of pilgrimage, and the railway station for it is called 'Trīśa-bighā,' a curious 'apabhraṁśa' and relic of both 'Trīśakuni' and 'Tri-vihagā' (both meaning 3-birds or 3-rivers or Trivenī). The old bed of the silted up Sarasvatī is still discernible in this region; and near by is the site of the famous medieval Saptagrāma. The present district of 24-Parganas is wholly to the east of the Bhāgīrathī, but in earlier times village groups to the West of the river, including the site of Trivenī might easily have been reckoned within its area, as our author says it was.

43. The writer has missed the 3rd name, the branch river that would correspond with the Yamunā. The Sindhu he takes to be the Sarasvatī; this is clear from the two geographical traditions he refers to; also the equation of Sindhu and Sarasvatī is Vedic.

44. Or,—thus it is discovered (or concluded) by the wise.

45. Probably this means 'lower down the course of the Gaṅgā, following its eastern branch or the Padmā (not the southern branch).'

46. 'Bya. gag.' can be translated as 'Karaṇḍa,' 'Kokila,' or 'Sārikā'; so alternative names would be 'Kokilārāma' and Sārikārāma.' 'Karaṇḍa,' again, may mean 'the Bee-hive,' a fine description of a Vihāra, or 'duck', which latter is accepted by our writer (bya. gag.); if he is correct, the Duck-Vihāra must have

To the North (of this) is Naṭavara.<sup>47</sup> To the East (of it) is Nalendra.<sup>48</sup> —In the South (of India) flourished the Vaiśeṣika (philosopher) of Koṇ. ku.<sup>49</sup> at Kāñcī, Dharma-kīrti (ācārya), the 'jinendra-śiromaṇi'.<sup>50</sup> To the North-West, in Mathurā,<sup>51</sup> the temple of Śarāvātī<sup>52</sup> was. Of Dharma-kīrti one of the monasteries is Dakṣiṇa-Tambula. To the Southern border of Buddha-gupta is Sor. raṣ. ṭa.<sup>53</sup> In the Middle

been beside some Bengal 'jhil' or 'bil' abounding in ducks. Karaṇḍa-vihāra is often referred to in Buddhist texts, and Tibetans always place it in Bengal. Elsewhere our author says that this Vihāra in Bāṅgālā was built for and presented to, Arhat Yaśa-Indrasena (disciple of Arhat Ripuñjaya Guru of Prācyā and later on the converter of Kālāśoka) by Mahendra a great-grandson of Darśaka,—which would be cir. 492–483 B.C., acc. to our author's chronology.

47. Elsewhere in the same work, 'Naṭavara-pura' [not 'Naṭa(–vara or vira)–Vihāra', which according to the same authority was near Mathurā]; said to be the same as present Natore (in N. Bengal),—to the north of the Padmā River and not far from Puṇḍravardhana (Mahasthan) and Paharpur. Natore area should be archæologically explored.

48. This Nalendra-Vihāra, to the East of Natore and beyond the Ganges, is to be distinguished from its namesake in South Bihar, otherwise known as 'Nālanda' (and various other forms). It was this Eastern 'Nālanda' [really 'Narendra-vihāra' or 'the King's Monastery'] that King Gopāla is said to have founded in the Tibetan sources, for the other Nālanda existed long before. It is likely that a good deal of what is said about Nālanda of South Bihar [the origin of the name being different] really belongs to this 'Bāṅgālā' Nālanda. Its name perhaps survives in the 'Nārindā' ward of the City of Dacca [Dāvākā] on the Buṛī-Gauṅā or the ancient flow of the Ganges; excavations might repay.

49. Same as 'Koṅgu.' known to Ind. lit. and inscr. Dharmakīrti was thus a man of 'Koṅgu-deśa' and he worked at Kāñcīpuram mainly; his 'guru' Dharmapāla was also a Southerner; 'Dakṣiṇa-Tambula' was one of the Vihāras founded by him, as noted *infra*.

50. In Tibetan references Buddhist saints, scholars, etc., are often called 'Jina' (and deriv.); this is probably due to influence of Bengal (whence Tibetan Buddhism largely emanated), where Jainism long existed side by side with Buddhism, and even flourished for some time.

51. The Tib. name lit. means 'conquered and destroyed,' i.e. by Yavanas as they say [Greeks, Śakas, or Muslims.]

52. The text has 'Ahdam. spu.', wrong for 'Ahdam. bu.'. Śarāvātī is very well known to Tibetan Buddhist tradition, and numerous episodes in Church history are connected with it.

53. This seems to mean that "in the Southern border of Śurāṣṭra is situated a 'vihāra' associated with the name of Buddha-gupta (or °-pālita)"; which Bud-

Country, in regions included within Magadha<sup>54</sup>, are Vajrāsana, Nālen-dra, Otanta-purī, Vikrama-śīla,<sup>55</sup> and various other big Monasteries.

From the 'Vinaya-puṣpa-mālikā-Tantra':— "Śrāvastī, Sāketana, Campaka, Vārāṇasī, Vaiśālī, Rājagṛha,—these 6,—they are the famous big cities."—But like them there are other (big) cities :—To the North, going by way of Tha. ru., Dho. lan.,<sup>56</sup> Rba. ra. ha. ra. tra.,<sup>57</sup> etc.. To the East of the limits of the Middle Country,<sup>58</sup> Puṇḍra-vardhana.<sup>59</sup>

dhagupta and which 'vihāra' is not noted in the text ; possibly Tārānātha's teacher Buddhagupta is referred to.

54. It is to be noted that in Tibetan Buddhist geography Magadha is *not* within Prācī, but within Madhyadeśa, whereas the whole country from Tīrabhuk-ti (as much western as Magadha) to Kāmarūpa and Oḍiśā (Orissa) to Caṭigāma (Chittagong) is stated as forming the Prācī, Vāṅgālā being almost equivalent to Prācī,—which shows extension of the name Vāṅgālā.

55. It is to be noted that Vikramaśīla is stated to be "in a region *included* within Magadha ;" this region is clearly Aṅga.

56. 'Tha. ru.' and 'Dho. lan.' are apparently unidentifiable towns, unless we take 'Tha. ru.' to be a Tib. trans. of 'Aja-mi(ī)ra' (Ajmer), which in Sans. means 'Goat-limit,' and Dholan to be a corr. from of 'Dhaura,' a tīrtha (cf. also N. W. place names like Dhūlan or Dhūliān).—It is however possible to translate—"going *by means of* 'Tha. ru. Dho. lan.'," in which case 'Tharu Dholan' can be taken to be a form of the Sanskrit 'Taru (-otr, -otra) Dhorapa', i.e. swift horse chariot or horse post, going at a quick trot ; this kind of conveyance would therefore seem to be in common use on cross country routes in medieval times, specially in North India.

57. Seems to be corrupt for 'Varāha-kṣetra' or 'Puṣkara,' near Ajmer (vide n. 56).

58. I.e., in the Prācī, of which Bāṅgālā is the centre ; note the next sentence. It is clear that the cultural and linguistic affinity of Mithilā, Utkala and Bāṅgālā was already well established and recognised in the days when Tibetan Buddhistic traditions became fixed, i.e. in the Pāla period (750–1200). It is also to be noted that Kāmarūpa, Gauḍa, Tripura, and the Hill-country adjacent, are regarded as within the sphere of affinity of the Prācī peoples.—I am inclined to think that this pushing of the Prācī sphere to the East beyond Magadha, so as to exclude it and Kāśi-Kośala, while including Mithilā (rather out of the way), and so as to include the regions up to the Eastern Hills, is due to the denationalisation of the ancient Magadha by successive Yavana, Śaka, Andhra and Hūna occupations and devastation (last but not the least by the events of the early 13th century),—as a result of which the best elements of ancient Magadhan population and culture began to migrate into the Bengal provinces from the 2nd century B.C. onwards, and found a very kindred receptive and congenial atmosphere for continued life and progress. Ultimately even from

Of the three (regions) in the East, Bāñ. ga. la. and Ti. ra. hū. ti. and O.ḍi. bi. śa.<sup>60</sup> by name (or etc.), is composed the Prācī.<sup>58</sup> Of these, to the North of Bāñ. ga. la., and near by,<sup>58</sup> Ka. ma. ru., and Go. ḍa., and Ti. spu. ra.<sup>61</sup>, Ha. nu. ma. <sup>62</sup>, etc.; and also (the country) generally known as Gi. ri. wa. dha.<sup>63</sup> by name. And to the Eastern limits of them, Spu. kham., Pa. la. ku.<sup>64</sup>, etc. ; and Ra. khañ.<sup>65</sup> and Hi. sa. wa.

these regions the culture and best elements of the surviving people were expelled into Greater India, across the Himalayas into Nepal and Tibet, or across the Eastern Hills into Further India, or across the Seas into East Indies and Indo-China,—as indeed the Tibetan Church histories indicate by specific references.

59. The city of 'Li. Kha (ka). ra.--śiñ.', i.e. of the Likara plant or Sweet Cane or Sugar Cane (cf. Lat. Liguorice = the Sweet Stick, 'yaṣṭhi-madhūka'); prob. the form in the mind of our author is not Puṇḍravardhana, but Puṇḍra-nagara. In Buddhistic times this region and town was known to Tibet as the best sugar producing and manufacturing centre of India; cf. 'Gauḍa' as producing 'guḍa' or 'powder-sugar,' i.e. 'bhurā.' 'Puṇḍra' = 'Ikṣu' or sugarcane. The lexicons give Puṇḍra as the name of the red variety of sugarcane, also called 'Puṇḍrekṣu' or 'Puṇḍarika' (= 'Puṇḍrika'). 'Puṇḍarika pura' was a town with a 'māhātmya,' and Hemacandra (Paṇḍita<sup>o</sup>) knows of a town near Videla called 'Puṇḍarikiṇī.' It seems possible that the 'Puṇḍrakas' (mod. Pods) of Bengal were of the same stock as the 'Ikṣvākas' (since Puṇḍra=Ikṣu). In the early days of the European Companies' trade also, Bengal was the best sugar-manufacturing region of India.

60. 'O. ḍi. vi. śa.' stands either for Oḍra-viśaya or Oḍra-viśa (the Land of the Oḍra Viś or tribe); it is also the early medieval original of the modern 'renaissance' form Oḍiśā (corrupted by Sanskritists into Uḍṣyā and Anglicists into Orissa).

61. I.e., Kāma-rūpa, Gauḍa, Tripura (°ā, Tippera); the context shows that both towns and districts of the same name are referred to.

62. Supposed to be Hill Tracts of Tippera and adjacent hilly regions of Surmā Valley. 'Hanu' in lexicons and 'Hanyamāna' in Mbh. are names of a mixed tribe and a people and country, respectively.

63. Stands for Sans. 'Giri-varta (°tma),' 'Giri-patha' or '°vandha', i.e. Hill Tracts, or Mountain fastnesses or Passes; seems to be the higher hill country between the Surmā and the Brahmaputra Valleys (Garo, Khasi, Naga and Jainti Hills). Tibetan popular interpretation makes it 'Assam Hills down to Tippera.'

64. 'Spu. kham.' and 'Pa. la. ku.' are supposed to be the Hill Tracts East of Chittagong, the former being their northern half, the latter the southern (towards Arakan). 'Spu. kham.' lit. = 'Hair-Brown' (men) = 'Babhrū'; an Eastern region called 'Babhrū-deśa' is known. Perhaps it is the old name of Manipur Hill Tracts (associated with 'Babhrū-vāhana' of epic fame, 'the Leader of the

ti.<sup>66</sup>, and Mar. go<sup>67</sup>, etc.; also Mu. ñan.<sup>68</sup>; and besides, Cak. ma.<sup>69</sup>, and Kam. po. ca.<sup>70</sup>;—these all are generally known by the name of Ko. ki.<sup>70</sup>.—In the Middle (Country)<sup>71</sup> and towards its Southern limits

Babhrūs or Brown-haired Men'). 'Palaku' may be compared with 'Pālakka' of the Gupta period. Pālakka, Pālaṅga (and variants,—Beta Bengalensis) may be seen in East Bengal place-names like 'Pālañ'; it is possible that 'Palaku' survives in the river and valley name 'Barak' in Assam Hills.

65. Modern 'Arakan'; lit. the name means 'Goat-land', and if a Sanskrit equivalent is sought it would be 'Āvika', 'Raurava' (or 'Roruka') or 'Rāmyaka' (which last reminds of 'Ramma' another Tibetan name for the Chittagong—Arakan region); it is to be noted that Lha. sa. was also originally named 'Ra. sa.' = 'Goat-land'; perhaps this was an usual place-name amongst Tibeto-Burman tribes.—Has Paurāṇic 'Rasā-tala' any connexion with this Ra. sa. and Ra. khañ?

66. Scriptural mistake for Ha. sa. wa. ti. or Hañ. sa. wa. ti., i.e., Hañsāvati, modern Hanthāwadi in Pegu [which again is probably a Tibetan place-name, 'Dpyis. gu., = Beauty-land or Rāmya-deśa; cf. 'Ram. ma.' above].

67. Modern 'Mergui' (port, district and islands). The name lit. means 'Lower Regions', i.e. lands in the far South; something like 'Pātāla' or 'Mahī-tala' would be a Sans. equivalent.

68. This is the usual Tibetan name for Burma proper (Irawady Valley); it means 'Ñañ' of the remote borderland or 'Further Ñañ'; Ñañ is the region of Tsang of which Gyang-tse is the chief town; this again seems to be another instance of place-names common to Tibet and Burma (cf. Ra. sa. and Ra. khañ.).—Elsewhere our author states that after the destruction of the Buddhist centres of learning in Bāṅgālā and Magadha (1203 ff.), Buddhist scholars migrated to and preached Buddhism in Burma (Mu. ñañ.) where the contemporary king was Bāla-vāhana, son of K. Babla-Sundara.

69. 'Cak. ma.' is the same as those hill tracts of Chittagong which are peopled by the Chakma tribes today,—i.e. the valley of the Upper Karnaphulī River. Our author says elsewhere that Buddhism spread here from Bāṅgālā in the 13th century, the contemporary Chakma King being Atīta-vāhana.—'Cak. ma.' is corrupt for *either* 'Lags. ma.' (= 'Iron-source'-land, Sans. equivalent being something like 'Lohajanī'; cf. the East Bengal place-name 'Lohajan(n)'; place names with 'Lags.' as the chief part thereof are common in Tibet).—or 'Chags. ma.' (= 'Kāmini'-deśa, i.e. 'Strī-rājya', referring to the dominance of women in these hill tracts).

70. Kam. po. ca. [note the 'ca' which reminds one of the peculiar East Bengal pronunciation of 'ja'] = Kāamboja. This may be taken to be = Cambodia and Champā in Indo-China, where (our author notes elsewhere) Buddhism spread after 1203 from Bāṅgālā. But it is perhaps better to take it as = Upper and Eastern Lushai Hill Tracts, since all the regions in this list are stated in the text to be generally called 'Koki'-land, or the country of the Koki (mod. Kuki)

there are also the 'Jvālā-guhā's.<sup>72</sup>—To the South, beside the Ocean, Ka. na. ṭa.<sup>73</sup> Vidyā-nāgara,<sup>74</sup> Koñ. ku. na.<sup>75</sup>, Tu. mu. ra. ti.<sup>76</sup>, Dra. pa. li.,<sup>77</sup> Mālyara,<sup>78</sup>—and included within the region of 'Ti. liñ. ka.<sup>79</sup> the country of Ka. liñ. ka.,<sup>79</sup> and Kha. gan.,<sup>80</sup> etc., are situated. Towards

tribes. Mountainous regions were loosely called Kāmboja in ancient and medieval India. But it is possible also that the entire mountainous country of Further India, from Lushai to Annam, was called Kamboja, and the ethnic name of Koki was also geographically applied to the same region,—but in modern times the former name survives in the eastern part of the region, while in the western part the latter name has survived. According to another Tibetan source (Sam. bha. lañhi. Lam. yig., quoted by S. C. Das), the name Koki includes Cak. ma. (Chittagong Hills), Han. sa. wa. ti (Hansāvati, Hanthāwadi in Pegu) and Haribhadra or Mañipur.

71. By this 'madhya-deśa' Magadha is intended here; cf. the meaning of 'Prācī' above.

72. Lit. 'Hidden Fires', i.e. Hot Springs and subterranean fires; these are clearly the Hot Springs of South Bihar near Rājgir, Monghyr, Kharagpur (South Monghyr), etc..

73. I.e., Karpāṭa, Kaṇāḍā country, or the Carnatic.

74. Alternative form of the famous Vijayanagara, founded c. 1336. Tibetans continued to be in touch with Peninsular India till the days of Buddhagupta and Tārānātha (17th century); they maintained close contact with Acintya-Vihāra University (Ajaṇṭa "Caves") till its destruction in early 14th century (a century after Nālanda).

75. I.e. Koñkaṇa.

76. Either 'Ta. ma. li. ti.' or Tamluk (Tāmralipti), or 'Tāmra-dī- (dvīpa)' = Ceylon,—or 'Dakṣiṇa-Tambula' (Tambula of the South), referred to elsewhere in the text.

77. Also written 'Dra. bi. li.' elsewhere in the text; same as 'Dramila' or 'Drāviḍa' = Tamil-Nāḍu.

78. Prob. corrupt for 'Malaya. ri.' or Malaya Hills, a bilingualism for Tam. 'Malai' = Hills = Tib. 'Ri.'; this is the country of Malabar, Anna-Malai and Ooty hills evidently.

79. Telingana, 'Tri-liṅga' or 'Tri-Kaliṅga'. 'Ka. liñ. ka.' or Kaliṅga proper is evidently regarded as the most important part of 'the Three Kaliṅgas.'

80. Said to be the same as 'Khagendra-rājya.' Perhaps the reference is to 'Khagāsana' or Udayagiri Hills of Orissa (or Ganjam); alternatively 'Kha. gan.' may be taken as mistake for 'Kha. gyen.' (though 'gan.' is sometimes = 'gyen') or 'Kha. rgyan.'; in the former case it would mean 'upward-mouth' i.e. 'Ut-kala' ['Kala' = voice = mouth, 'Kara' = elephant's trunk = mouth] or Orissa; in the latter case it would mean 'mouth-ornament' = 'Tāmbūla' = Tāmralipti, or 'Tambula' of the North, as dist. from 'Tambula of the South' referred to in the

the South of this,<sup>81</sup> the shape (of the country) becomes triangular, having at the vertex the Ocean : where (the land) juts into (the Ocean), (there) is Ra. smi. śva. ri.;<sup>82</sup> ahead of this, on the Ocean of the East direction, Ma. he. da. rdi.,<sup>83</sup> and on the Ocean of the West direction, Ra. ta. nā. gi. ri. by name.<sup>84</sup>

*In the midst of all this country, the spread of Buddha's Doctrine (occurred) :—*

From 'Mañju-śrī-mūla-Tantra':—"Up to the limits of both land and sea,"—thus was the prophecy."

Of the Middle Country to the West from Vārāṇasī,<sup>85</sup>—Prayāga, Mathurā, Ku. ra.,<sup>86</sup> Pāñcāla, A. ga. ra.,<sup>87</sup> Sa. ga. ri.,<sup>88</sup> Īḍi. li.,<sup>89</sup> and Mā-

text before. In any of the three cases, the region between the Bhāgūathī and Ganjam is indicated.

81. I.e., of Telingana. Mapping and charting was evidently known in India and Tibet in the medieval periods at least.

82. I.e. Rāmeśvara (Setuvandha).

83. Probably 'Maheśvara-dvīpa' ('Maheśa-dī', or in mod. vern. Maheśāddī), either in East Bengal or in South Chittagong [cf. 'Maheś-Khāl' channel and island there], across the Bay of Bengal (Ocean of the East-Direction or Prācī). 'Ma. he. da. di.' may be the corrupt form of so many Indian place names (known to lexicons, epics, etc.): e.g., Mahiṭṭha-dvīpa, Mahiṣādri, Mahendrādri, Mahiṭṭa-dvīpa, etc..

84. Ratnagiri, near Goa and Bombay.

85. Counting from the site of 'Dharma-cakra-pravartana', or 'Dharma-cakra' Stūpa (Dhamick) in Śāranātha (Benares).

86. Kuru country; if the city is meant here, it stands for Hastināpura; similarly the Pāñcāla 'city' would be either Ahicchatra, Sambhala or Kāmpilla.

87. Agra-nagara, or Agra-purī (also known as Agra-dvīpa or simply Agra), with its 'Agra-purī-Vihāra', where the Buddhist scholar Guṇaprabha lived during the last part of his career. The site of Agra is an ancient one (Buddhist, if not Epic) demanding archaeological exploration.

88. Modern 'Sāgar' in Central Provinces, where (according to Tibetan Buddhist tradition), in the 'Uṣma-purī-Vihāra', King Gambhīra-diśa patronised the Buddhist Saṅgha and the famous Ārya-Asaṅga. This site also awaits exploration.

89. Same as later 'Dehli'; this name of the city is said by Rajputs to be as old as the 10th century; the city itself is of course older, the oldest settlement being named Indraprastha. As the 'Lorawas' know of 'Di. li.', this name may easily be older than c. 900 A.D.. Our author says elsewhere that Kaṇiṣka ruled over Īḍi and Palava (Pahlava) country; so Īḍi existed in 2nd. or 1st. century A.D..

lava ; besides these, Maru.-Ḍi. li.,<sup>90</sup> Hala. Kaccha,<sup>91</sup> etc., it spread over.

*So far, of the Locchās and others' correct opinion according to, has been written duly.*<sup>92</sup>

90. Probably before the Tomaras founded 'Ḍili' in the fertile Jumna Valley their earlier seat, also called 'Ḍili', was in the Maru, or the desert region of Marwar (cf. Gurjara-Pratihāra migration from Bhīmāl to Kanauj); the 'Locawas' thus knew of two 'Ḍi. li.'s. A third 'Ḍili' seems to be known to our author who says elsewhere that Vindusāra with Cāṇakya's help extended dominions far beyond Ḍili, a city to the North of Mt. Kailāsa.

91. 'Bharu-Kaccha' may be intended; 'Ha' may be a miscript for 'Bha'. Alternatively, 'Hala' may be taken separately, referring to the Hala country and people of the N. W. (Var. Br. Sain.),—apparently Sindh containing the Hala mountains, —and 'Kaccha' in that case would mean Cutch. Our author in the next section describes the progress of Buddhism in Bharu-Kaccha, Sindhu, Mahārāṣṭra and adjacent regions, in the time of the 8th (or 7th) Hierarch Sudarśana (end of 5th century B.C., acc. to our author's chronological data).

92. That is, this list of regions *in* and adjacent to Madhyadeśa, specially *west* wards, as well as the region lists of the Prācī, the South and Trans-Himalayas, are drawn up according to tradition as recorded by the Tibetan Sanskritists and interpreting Paṇḍits of India, during the period 10th to 14th century. [The form 'Locchā', (note the East Bengal ring about the sound) for 'Lo. ca. wa. (or correctly 'Blo. rea. wa.'). is interesting, as showing the process of Aryanisation of a Tibetan word (itself a translation of a Sanskrit word, 'vyutpanna'); 'locchā' in Bengali later on acquired a very derogatory sense (not an unnatural process), due to degeneration of Tāntrik Buddhism.—In my studies in Tibetan roots I have come across most interesting and instructive philological facts, which are calculated to change many of our current notions about Indo-Aryan dialects of India, and relations of Indo-European races with Tibet.]





## KATHĀVATTHU—DR. B. C. LAW'S TRANSLATION

By C. A. F. RHYS DAVIDS

At all times and more or less has man been a seeker. And at all times and more or less has he sought for what he holds to be real, true, not an illusion. What he holds to be such will not in every quest be true, real, in the worth held by another man. In what I here say I am valuing as true, as real that which the modern Buddhist does not so value. I deem I have here the advantage in that I have paid more heed to the history of the Buddhist movement in India than does the modern Buddhist, albeit it is on his own scriptures that my knowledge is based, and not on what chroniclers not Buddhist have recorded.

Consider for instance the subject of this new translation which I would have readers of this Journal welcome. It is the Commentary, ascribed at least to Buddhaghosa, on the fifth book of the Abhidhamma-Piṭaka, entitled *Kathāvatthu*, a text translated by the late S. Z. Aung and myself, and published as *Points of Controversy*, by the Pali Text Society in 1915. This work claims in its Commentary to be a collection of debates held at what is recorded to have been a very important much-deciding council or congress held at Patna in the reign of, and presided over by, king Asoka—a council reckoned by 'Southern' Buddhists as the Third, though Eastern Buddhism does not recognize it. (There is some excuse for this non-recognition, as I have shown elsewhere.<sup>1</sup>) Incidentally it may be said, that in all probability only the first *vagga* or book of these 23 deals with the debates held during the long duration of the Council. The remaining 22 deal with dissenting and hence 'heterodox' views held by this or that uprisen sect or school, so that as a whole the work *Kathāvatthu* is a bundle of accretions, of different dates. The 22 are not without historical interest, but in this respect the first book, especially its first cluster of debates is of outstanding historical interest. And yet I have still to see both debates and council discussed sympathetically or critically by any writers calling themselves Buddhist. Especially those who would call themselves converts to Buddhism. For theirs is not the Buddhist tradition; their adopted faith for them stands or falls according to the truth of what is recorded about this council, and in these debates. Yet they ignore it. I admit that most converts to Christianity are equally content to remain in

1. *Manual of Buddhism* (S.P.C.K.), p. 293.

parallel ignorance, and cannot afford, if they would, to blame converts to Buddhism.

What is it then that was such a crisis during those months at Patna? I have dealt with this elsewhere,<sup>2</sup> and must here be brief. Briefly, a great change had been coming over the teaching we now call 'Buddhism.' More truly I should say: had come over... Scriptures tell less what is going on than what has taken place. In the Pali Canon we find formulated teachings repeated and emphasized; we find also other teachings also formulated, but not emphasized. 'These, but not those, are in keeping with the religious teaching holding the field in Indian culture when 'Buddhism' began. 'These do not harmonize with those. We judge the latter, the unemphasized, as older, because they are against the trend of the emphasized formulas, because these are intensified in later exegesis, because the attitude or postulate which made the unemphasized sayings rational was at Patna tried and rejected. At that Council, in those debates, it was decided, that, in the complex making up a 'man,' there was not a body and mind *used by* a spirit or self, but that the man was nothing more than what was used. Or, as it was also worded, the man was just a bundle (*puñjamattam*) of fleeting phenomena called *dhammā*.

Now Patna was a new centre of the Buddhist 'church'; the relatively new centre of the new Mauryan dynasty. An earlier centre of that church was Vesālī or Vaisālī, and there it was still upheld, that the Master had taught that the man, over and above his instruments, was real. To this extent the older Indian culture was maintained. Lost, even by Vaisālī, was the seeing in the man potential Deity:—the Immanence belonging to that culture. But the spirit or self, if not of Divine nature, was none the less a true entity, who used, who valued by, believed or doubted by, judged and spoke by body and mind, who dissolved not at death with earth-mind and body, but fared further, assuming new body and mind-ways. This, they held firmly, was the founder's teaching.

Thus at Patna, where delegates from Vesālī engaged in debate on this matter with members of the Patna new orthodoxy, the man-as-real was fighting for his life, with his back to the wall. The outcome of the debates was virtually the slaying of him. I say virtually, because the debate-thesis was, not 'Does man, as not body and mind, exist?', but the more Humian 'Is the man got at (*upalabbhati*) in the true highest meaning?' The Patna Buddhists denying this, denying therewith that man as a growing entity persisted not for this life only, *opened the way* for the later crude denial that he existed at all, save

as a mere conventional label in popular speech, and that in nothing whatever was there any thing that might be called spiritual 'substance'.

Already, in the Debates Commentary we see the author or authors of the first written version, whenever and wherever that was accomplished, inserting a 'coda' to the first debate-group, explaining as antithetical the man in the popular or conventional sense (*sammuti-kathā*) and the man in the ultimate sense (*paramatthakathā*), and how the status of a learner is reckoned according as he can be taught about man in the one idiom or the other, "even as the Blessed One taught"—a tragic liberty to take with the records, since this distinction is nowhere hinted at in the first two Piṭakas. Even had the distinction been definitely taught at the time of the Patna Council, we should certainly have seen the Sakavādin, or representative of Us, the orthodox, *using it in debate*. But he never does. One term of the antithesis is certainly there, in the thesis. But its opposite, *sammuti*, does not appear till a later Book of Debates (V. 6), and then, without the opposite, in a very different context.

Surely then it should be held by Buddhists of primary importance to consider carefully the profound significance of this crossing of the Rubicon<sup>3</sup> at Patna: the nailing the unreality of the very Man to the cross, the expulsion of many who protested they, and only they, were holding to their Master's teaching. Can they be so very confident, that the monks who had led the Saṅgha since, say, the date of the Second Council had guided themselves by the inward prompting of that Dhamma, that 'Deitie in my bosom' named by their founder as his sole (and permanent) successor? Do we not rather discern, if we heed well their scripture, how it was no longer a gospel for every man that was being taught, but chiefly a teaching for the monk by the monk? A teaching which was making, not an ever finer life through the worlds man's religious quest, but the seeing in life a Less that had so to be lived as to be brought to an end by the rounding off of it by the 'arahān'? A teaching which, so far from seeing in the man divine promise, brought in a cheapening and lowering designation for him in the word *puggala* being used for man-as-entity, instead of *purisa* or *attā* or *jīva*, as if, shall we say, Jesus had spoken of a man as a wight, a swain, a guy, a fellow? The Commentaries even analyze this ugly word as meaning 'hell-swallower'! English readers cannot see this heavy handicap suffered by the translator. But for the Buddhist student in the long past, this derogatory term must have coloured the whole of this group of debates on the "*puggala*". The

3. Cf. my article 'A Buddhist Rubicon,' *New Review*, October, 1939.

protesters of Vesālī<sup>1</sup> cannot possibly have been content with being dubbed as Puggalavādins, as the orthodox appear to have called them.

Nor can we be sure that, in the record of these debates, we have the rejoinders or propositions of the 'Speaker for the Man' fairly and truly recorded. As expelled from the Saṅgha at the decision of the Council, because he would not 'analyze' the 'man' into a complex only, he will have been helpless as to the fate awaiting a record, oral and subsequently written, of his utterances. He may have tried to partake in the recording; he was certainly not successful. For he would certainly have spurned the clumsy logic of his opponent. The *Kathāvatthu* is probably the earliest Indian work composed by way of a deductive logic closely resembling the Aristotelian syllogism. We have only in our own day come to see, that the quest of the true requires, not so much a method of deductive consistency as the inductive building up of premisses. The orthodox speaker is ever treating the 'All S is P' as meaning that S is the whole of P. The other is, alas! dumbly, only protesting, that S may be P, but only Px, not Py.

For instance the defender maintains, that "man (S) persists through becoming" (P). The orthodox maintains that persisting through becoming includes decay (after maturing). Now would you admit that your real man, i.e. spirit, decays? The protestant is merely made to reject this. Actually he will have tried to say: Nay, persistence in becoming may be Px, i.e. of things material liable to decay, or it may be Py, i.e. of things spiritual. But this he is not recorded as saying, and is merely made to look ridiculous. It is possible of course, that Vesālī had not cultivated the new logic, and hence spoke at great disadvantage. There is nothing in the Commentary to inform us, and I confess to getting the impression, that we have here children of the day of a new discovery in speech playing clumsily with a new weapon.

Well, this interesting novelty in Buddhist literature has now been made more accessible to readers of English by the enterprise and energy of Dr. Bimala Churn Law. He has translated for the Pali Text Society the Commentary on the Debates, generously covering most of the cost of printing. He has worked at great disadvantage, in that the Pali text, edited 51 years ago by Minayeff from, it would appear, only two Mss., Singhalese and Burmese, long before the Siamese edition appeared, is very badly punctuated. Nor does it in every case correctly name which of the two debaters is speaking.

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4. We might render this by Bloke-ists!

Of this I would like to give what is, I believe, a case in point. In § 234 of the text (P.T.S. ed) 'our speaker' cites a verse from the *Sutta-Nipāta* (1119) bidding the questioner "look upon the world as void". . . .i.e. of spirit (*attā*), hence it is futile to seek for a veritably existing 'man' in it. Our speaker then asks "Is it a *person* here who 'looks upon'?" The Commentary follows up thus: "The Opponent is so asked because he contends that he who so 'looks upon' is a person (*puggalo'ti*). 'Our speaker' is then shown as shifting the point to whether the 'looker' is one and the same as his 'looking' faculty. Now I venture to think that, in this citation, whichever made it, the 'Opponent' (*paravādin*) will have really contended, and not merely acquiesced, as, in the text only, he is said to do. He would, in fact, have been following the argument accredited to his Master in the Second Nikāya<sup>5</sup>, that the self, spirit or 'man' is a More than his instruments. Body is what is willed (to 'look', etc.). Mind is the willing, the looking (the perception). But the looker, the willer to look, is the 'man'. If, Gotama is shown saying, you reduce your judge-king, who disposes of the lives and property of his subjects, to being no more than one of these, where then is the ruler and adjudicator you say exists? That the appeals to authority in the debate do not include this striking vindication by the Founder himself (as alleged) may set us wondering. I admit, that the simile is so editorially smothered, that even Vesālī may have come to overlook it. Anyway, the citing of the 'looker' was a strong point for the man of Vesālī, and that he is shown failing to use it with effect may leave us doubtful as to the honesty of the editor.

One more point may be mentioned where, for me, the 'our speaker' shows in a bad cause the better discernment. The 'opposer' of Vesālī contends that at least abnormal psychic gifts demand the postulate of a personal agent to exercise them (p. 38). The orthodox view is to reject such an intermittent agency, and that such a gift constitutes a reason for vindicating by the agent his reality. In other words either the very man (or self) must be a constant reality or unreal. It was a hedging in protest, unlike the prevailing defence.

This defence was not so much a well thought out position as the stand of traditional loyalty to 'what the Master had taught.' For that matter tradition in the Sayings is used as a weapon by both sides, to show, not so much affirmation of man's reality, as sayings *implying* it, or implying the opposite. Never must it be forgotten, that when the

5. *Majjhima-Nikāya*, Sutta 35. Cf. *J.R.A.S.* 1937 : 'An overlooked Buddhist Simile.'

Founder lived and taught, the reality of the very man, self or spirit was so strongly affirmed and glorified, that to have denied it would have seemed the word of a mad man. 'There was *no need for Gotama to affirm*. And this may well be the reason, rather than any editorial manipulation, why the loyal and loving Vesālī follower had come so ill equipped with convincing reasons as to his own reality as a real 'person.' He shows himself as ill prepared as is, say, any modern psychologist, excepting our own James Ward. He loved and believed. And we call to mind that last look of the aged Founder as on leaving Vesālī he turned, and called Ānanda to heed his farewell.

Taken then by and large, the translation of the *Kathāvatthu Commentary* is, for this English editor of today, not one that was commended to Dr. Law without some misgiving. As Professor Helmer Smith has reminded me, a more critical edition of the Pali should have preceded it. But this would have postponed the present achievement indefinitely. And amid much that is a mere endorsing from an altogether prejudiced standpoint, there are in the Commentary here and there points of interest. I am not referring to the names of earlier or later sects whose views are debated, since Aung and I inserted portions of these in our *Points of Controversy*. I refer, as of chief historical interest, to the above-mentioned 'Coda' by a hand obviously later than the day of the first debate, on the esoteric distinction between popular and metaphysical, which seems to have 'come in', so different from the repudiation of the 'teacher's fist' ascribed in the Suttas to the Founder himself. This coda alone is worth a translation of at least Book I.

There is, further, interest in the Commentator's analysis of the new syllogistic process. And there is a richer interest in another historical emergence, namely of the term *bhavaṅga*, in which I have ventured, in my *Milinda Questions* to see, not the accepted *bhava-aṅga*, but an old obscured abstract noun *bhavaṅgya* as a name for man's vital continuum, as not a *Sat* (being), but a *Bhavya* (becoming). This term is used in the last book of the Piṭakas, but not in this book, the last but two (albeit at one time the last). That such a term is needed in certain debates is felt by the Commentator, to whom it will have been familiar. And by 'the Commentator' I mean of course not the earlier exponents orally explaining the text, or the first writers of the oral, whether in India or Ceylon. I have in mind the transcription from Singhalese into Pali said to have been made by that Omar Khayyam of dumped credit, Buddhaghosa. In *bhavaṅga* I think that Aung and I made perhaps too free with our modern term sub- or subliminal consciousness. As contrasted in the *Compendium of Philosophy* (*Abhidhammatthasaṅgaha*) with the *vīthi-citta* or process of perception our term is strongly suggested. Nevertheless any verbal equivalent of sub- or

subliminal is just not there, at that time. It is too modern to be used.

And there is finally a delightful psychological aperçu in the Commentary (VI, 7) on the debate "Is space visible?", wherein the Andhaka school contends, that we see the interval between encircling objects known to be solid, against the 'Us', who maintains, that we only infer it. Here it is of interest that neither text nor commentary uses the word *anumāna*, a term emerging, it would seem, only in later Buddhist logic. Earlier too, we find the Founder made to use, for inference, the unspecialized term *takka*. Clairvoyantly he has seen his deceased supporter Anāthapiṇḍika, now a *deva*. Ānanda, less gifted, ascribes the *deva*'s words to Anāthapiṇḍika, because they include praise of Sāriputta, whom he had loved. "Well done, Ānanda," is the comment, "as far as one can get by *takka*, you have got." Only the (later) Commentary explains by the later term *anumāna-buddhiyā*. This Commentary explains, not by this term, but by *manodvāra-viññāṇam up pajjati, na cakkhuvīññāṇam* : "arises as awareness of the gate of mind, not as visual awareness." Exegesis, we may note, had not got so far as to distinguish muscular movement as a co-ellicient in vision. Still it leaves no doubt of psychological progress in the fifth century A.D. .

No doubt either will remain with the reader as to the debt owed by Buddhist research to the spirited, gifted and generous translator in a task that cannot in any literary sense have brought its own reward in the doing.

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## ON THE EMPEROR MAHĪPĀLA OF THE PRATIHĀRA DYNASTY

By H. C. RAY CHAUDHURI

Mahīpāla is one of the most famous kings of the Pratihāra line. The Haḍḍālā Inscription gives for him a date in Śaka Saṁvat 836, that is, A.D. 914, and points to his supremacy over eastern Kāthiāvāḍ,<sup>1</sup> while the Asnī record of V.S. 974, that is, A.D. 917-18, implies control over Fatehpur in the United Provinces.<sup>2</sup> Rājasekhara, who refers to this prince as the sovereign of Āryāvarta, ascribes to him in the *Pracaṇḍa-Pāṇḍava* extensive conquests in the Deccan as well as in North-Western India. The king figures also in the *Vikramārjunaviṣaya* of the Kanarese poet Pampa as an antagonist of Narasiṁha,<sup>3</sup> apparently a feudatory or general of Indra III Rāṣṭrakūṭa, who is known to have ruled from A.D. 915 to 917.

The prevailing view amongst scholars is that Mahīpāla bore at least three other names—Kṣitipāla, Vināyakapāla and Herambapāla. The ascription of these names to Mahīpāla rests primarily on the theory, first adumbrated by Kielhorn,<sup>4</sup> that *Hayapati* Devapāla, the son of Herambapāla mentioned in a Candella Inscription, was identical with the Devapāla of Mahodaya or Kanauj, the successor of Kṣitipāladeva mentioned in the Siyaḍonī Inscription of V.S. 1005, i.e., A.D. 948-49, and partly on the equations Mahī=Kṣiti and Vināyaka=Heramba. The identification of Mahīpāla with Vināyakapāla extends the period of his reign to V.S. 988, i.e., A.D. 931-32, and possibly to V.S. 1000 (A.D. 942-3), if not to V.S. 1011 (953-54).<sup>5</sup> It further makes him the step-brother and successor of Parama-Vaiṣṇava Mahārāja Śrī Bhojadeva (II) mentioned in the so-called Bengal Asiatic Society's Plate of Paramādityabhakta Mahārāja Śrī Vināyakapāladeva.<sup>6</sup>

1. *Ind. Ant.* XII. 193-94.

2. *ibid.* XVI. 173ff.

3. *Dynasties of the Kanarese Districts*, p. 380.

4. *Epigraphia Indica*, Vol. I, p. 171; II, 124; Majumdar, *Gurjara-Pratihāras*, p. 59; Ray, D.H.N.I., 572.

5. Rakheta Ins., D.H.N.I., i, 585; Khajuraho ins., cf. *Gurjara-Pratihāra*, p. 54n.

6. *Ind. Ant.* XV. 138ff.

The only dissentients from this view, so far as I know, are Pandit Gaurishankar Hirachand Ojha,<sup>7</sup> Dr. Nihar Ranjan Ray<sup>8</sup> and the present writer.<sup>9</sup> It has been pointed out<sup>10</sup> that "*Hayapati* was never the accepted title of the Pratihāra kings of Mahodaya and is not met with in their inscriptions" and that the dates of Mahīpāla and Vināyaka do not overlap. The attitude of the Candellas towards the *Hayapati* and his father Herambapāla is certainly different from the reverential tone in which a king named Vināyakapāla is mentioned in the Khajuraho record: "While the illustrious Vināyakapāladeva is protecting the earth, the earth is not taken possession of by the enemies, who have been annihilated." It is further to be noted that the Asnī record of Mahīpāla (A.D. 917-18) makes no mention of Bhoja II for whom Vināyaka evinces great regard in the Asiatic Society's Plate of A.D. 931-32:

"*Mahendrapāladevastasya putrastatpādānudyātah Śrī-Dehanāgādevyām utpannah Parama-Vaiṣṇavo Mahārāja-Śrī-Bhojadevastasya bhrātā Śrī Mahendrapāladevaputrastayoh pādānudyātah Śrī Mahīdevīdevyām utpannah Paramādityabhakto Mahārāja Śrī Vināyakapāladevah.*"

The anomaly of ignoring a brother and predecessor in one record (Asnī) and honouring "his feet" equally with those of the royal father himself in another (As. Society's Plate), has not been satisfactorily explained by upholders of the older view. Furthermore, the name Mahīpāla is invariably applied to the Pratihāra monarch of the years 914-17 not only in records of the family and its feudatories but also in those of antagonists as well, and, as pointed out by Dr. R. C. Majumdar<sup>11</sup>, the name Vināyakapāla is not met with till a later period. Professor V. V. Mirashi quotes in the *K. B. Pathaka Commemoration Volume* a passage from the drama *Caṇḍakauśika* of Kṣemīśvara in which Śrī-Mahīpāladeva is styled Kārttikeya.<sup>12</sup> Now if, as suggested by some scholars, Vināyakapāla is to be equated with Herambapāla on the ground that the words *Heramba* and *Vināyaka* are synonymous, may it not be urged with equal cogency that the person in question

7. *Ep. Ind.* XIV. 180.

8. *Ind. Ant.* LVII. 23off.

9. *Gurjara-Pratihāras* (1923), p. 54, n. 6.

10. *Ep. Ind.* XIV. 180.

11. Cf. *Gurjara-Pratihāras*, 62.

12. P. 361 n.; Jivānanda Vidyāsagara's ed. pp. 4, 173: *Ādiṣṭo'smi.....*

*Lakṣmīsvayamvarapṇayinā Śrī Mahīpāladevena....*

*Tasya kṣatrapasūterbhramatu jagadidam Kārttikeyasya kīrtiḥ  
pāre kṣīrākhyasindhorapi kaviyāsasā sārddhamagresareṇa.*

must be distinguished from Kārttikeya? Is it not permissible to hold that just as the divine Kārttikeya is a brother of the divine Vināyaka, the king Kārttikeya, that is, Mahīpāla, is a brother of, and not identical with, king Vināyakapāla? The point certainly requires further investigation.

As to the rival theory, *viz.* the identity of Mahīpāla with Bhoja II (and *not* Vināyaka) preferred by Dr. Nihar Ranjan Ray, there is much that can be urged in support of this view. This may satisfactorily explain the non-occurrence of the name "Mahīpāla" in the Bengal Asiatic Society's Plate. While epigraphic evidence clearly distinguishes Vināyaka from Bhoja there is no such evidence to distinguish Mahīpāla from the same prince. Records mentioning the name Mahīpāla omit the name Bhoja and the inscription that refers to Bhoja II omits Mahīpāla. The omission of Bhoja II's name in the Asnī record has been sought to be explained by a recent writer<sup>13</sup> "either by the extreme shortness of Bhoja's reign, or by the assumption that there was a war of succession and at first the victorious claimant did not think it prudent to recall on stone the existence of one whom he had overthrown. But when with the lapse of time his memory had faded away, he felt no scruples in mentioning the name of his rival in the genealogical list." Both the alternative theories—the shortness of Bhoja II's reign and a war of succession—lack proof. If Bhoja's name is omitted in the Asnī record because of the shortness of his rule, why was it mentioned so prominently in the Asiatic Society's Plate? Not only does the so-called vanquished rival figure in the last mentioned record but he is referred to in a way which leaves no room for doubt that Vināyaka had almost the same regard for him as for his father Mahendrapāla-deva.<sup>14</sup>

In this connection attention may be invited to an extract from Mas'ūdi noted by Mr. Hodivala in his *Studies in Indo-Muslim History*.<sup>15</sup> The extract in question is usually translated thus:—

"The king of Kanauj. . . is Bauūra. This is a title common to all kings of Kanauj."

In commenting on this passage Mr. Hodivala observes that the right reading seems to be not Bauūra but Bozah, Bozoh or Bodzah i.e., Bhoja. Mas'ūdi, it may be remembered, visited India in the years c. 300-04 A.H. i.e. A.D. 912-16.<sup>16</sup> If the reading suggested by Mr.

13. Dr. R. S. Tripathi, *History of Kanauj*, p. 255.

14. Cf. the passage *tayoh pādānudhyātaḥ* etc.

15. P. 25.

16. *JRAS*, 1909, 271; *Gurjara Pratihāras*, p. 64; *DHNI*, i, 578 n1.

Hodivala turns out to be correct, the identification of Mahīpāla who is known to have ruled from 914 to 917 with Bhoja II cannot be dismissed as altogether implausible. Bhoja II was a Parama-Vaiṣṇava and a son of Queen Dehanāgā. The question of his identity will be finally settled when the name of Mahīpāla's mother is revealed to us and we have fuller details about the religious proclivities of that king. The epithet *Śrīnidhi* applied to Bhojadeva in the Bilhari Inscription<sup>17</sup> recalls the eulogy of Śrī Mahīpāla in the *Caṇḍa-Kauśika*, "*samara-sāgarāntarbhramad-bhujadaṇḍa-mandarākṛṣṭa-Lakṣmī-svayamvarapraṇa-yi*".<sup>18</sup>

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17. *Ep. Ind.* I. 256.

18. Jivānanda's ed. p. 4.

## ADMINISTRATION UNDER THE PĀLAS & THE SENAS.

*By* BENOY CHANDRA SEN

The administrative condition of Bengal from about the middle of the eighth century to the end of the twelfth is pictured in the inscriptions of the Pālas, the Candras, the Varmans, the Kāmbojas and the Senas. A close study of these records shows that the administrative system generally followed in this period, though uniform throughout in its main outline, was subject to changes and modifications as occasions arose. Secondly, it is also evident that when the period opens, it does not start exactly with the same system as is known to have prevailed in the preceding age.

In the eighth century A.D., when Bengal under the leadership of the Pālas found herself in the role of an imperial power confronting the task of administering large territorial possessions scattered over a wide area, she simply could not do without looking out for precedents elsewhere. Unlike Magadha from the days of the Mauryas down to the end of the Gupta Age, she herself did not possess any long-standing systematic experience in the art of administering an empire. No doubt with the collapse of the Gupta empire attempts were made by some local dynasties in the province to extend the boundaries of their states, but they are not definitely known to have attained an imperial status in the real sense of the expression, not in the sense in which panegyrists understand it. The case of Śaśāṅka may be pointed to as an exception, but it is commonly held that even he was originally connected with the Guptas; it is also almost certain that his career began outside Bengal, as the Rohtāsgaṛh seal which furnishes the earliest evidence of his power seems to show.

The imperial history of Bengal definitely commences from the time of the foundation of the Pāla dynasy, when she had to find out and apply a system suitable for administering her developing dominion.

The early Pālas cannot claim much originality in respect of the administrative machinery which they put into operation. The system already stood more or less complete at the time of the Deo-Baranark

1. Fleet, *Corpus Insc. Ind.*, III, pp. 213 ff. An earlier instance is the Banskhera copper-plate of Harṣavardhana, see *Ep. Ind.*, IV, pp. 208 ff.

inscription of Jīvitagupta II<sup>1</sup> which mentions a number of official designations also to be found in the inscriptions of the Pāla period.

The government which prevailed throughout the period was wholly of a monarchical type. There is little evidence of the existence of any constitutional authority by which the conduct of a king could be controlled. The Rāmācarita by Sandhyākara Nandī records the case of a Pāla king, Mahipāla II, ruling in a capricious and despotic manner, not paying any heed to the counsel of his ministers, but there was nothing in the whole system of government which could make this impossible. It was a single individual who revolted against the oppressive rule and organised a movement which brought about its end. In fact there is no clear picture of a definite form of constitution in the inscriptions of the period. It is the king and his family whose glory is constantly harped upon in a tireless strain. Among the many records from which the history of the different ruling families of the period is to be recovered, there is only one, the Badal *Prāśasti*<sup>2</sup> which emphasises the importance of a certain family of ministers. If this were the only source of information, the formulation of the theory that kings in those days were mere puppets in the hands of their ministers might have been justified to a certain extent. But this view is contradicted by a large mass of evidence which points to the king as the sole idealised hero, apart from whom the state had no existence, and who in truth was the state, as understood in those days. The Badal *Prāśasti* which depicts the achievements of a Brahmin family producing successive generations of ministers who served under the Pālas from Gopāla I to Śūrapāla I may have pitched the claims of the family too high; for in the official records of the Pālas there is no corroboration of its evidence in so far as, if at all, it raises the prestige and power of the ministers' family above those of the king. What the inscription may at the most prove is that nothing could prevent a king from offering his personal homage to a Brahmin minister, but this did not mean any deterioration of his supreme authority as the paramount head of the government. The influence secured by such a minister, as shown in the Badal *Prāśasti* was of a personal character, due to his good services to the king, but not to any constitutional right which could be duly enforced.

It may be safely mentioned here that there was the possibility of a constitutional development of a far-reaching character on the eve of the accession of the Pālas. At that time the country witnessed a general collapse of royal authority; it appeared as if everybody

2. Ep. Ind., II, pp. 161 ff.

tried to seize power and bring others under his subjection. But there was yet no apprehension of the failure of monarchy as a system, so deep-rooted it had become in the consciousness of the people. It was felt that only a strong ruler could save the country from the crisis into which it had been plunged, not that kingship as an institution had failed, and consequently a different form of government should be given a trial. Gopāla was acclaimed as the right type of ruler capable of steering the vessel of the state across troubled waters.

A question of constitutional importance is involved in the manner in which Gopāla came to occupy the throne. The verse in the Khālimpur inscription of Dharmapāla,<sup>3</sup> the son and successor of Gopāla, stating the circumstances in which the Pāla dynasty was founded, uses two words of a technical character, viz. *Mātsyanyāya* and *Prakṛti*.) The Kauṭīliya, speaking of the origin of the state of *mātsyanyāya*, defines the term as follows: *Apraṇīte hi mātsyanyāyam udbhāvayati Bālīyān abalan̄ hi grasate daṇḍadliarābhāve* i.e. "When the law of punishment is kept in abeyance, it gives rise to such disorder as is implied in the proverb of fishes (meaning that a great fish swallows a small one): for in the absence of a magistrate, the strong will swallow the weak, but under his protection the weak resist the strong." According to Indian speculators, monarchy had its origin amidst circumstances characterising a state of *mātsyanyāya*: *mātsyanyāy-ābhībhūtāḥ prajā Manuṁ Vaivasvatam rājānam cakrire*<sup>4</sup> ("People suffering from anarchy as illustrated by the proverbial tendency of a large fish swallowing a small one first elected Manu, the Vaivasvata, to be their king"). (The political condition of the country on the eve of Gopāla's accession, described as a state of *mātsyanyāya*, was such as to require the concerted action of the affected people to be put an end to. The term '*Prakṛti*,' therefore, which has been used in the Khālimpur Plate to denote the agent that brought about the end of the state of *mātsyanyāya* in which the country had been placed, should have the same meaning as the word '*Prajā*,' employed in the Kauṭīliya, denoting those who removed 'anarchy' by electing Vaivasvata Manu as their king. *Mātsyanyāya* is a recurrent phenomenon; it appears whenever there is failure of the law of punishment, i.e. whenever the kingly authority is non-existent. The situation which arose in Bengal was unlike one common to a state of temporary uncertainty, confusion and disorder marking a period of transition from one regime to another. At such a time there was the need of all combining together to find out a solution. The use of the word

3. Ep. Ind., IV, pp. 247 ff.

4. I, 13.



'Prakṛti' in the sense of people in general is to be found in two earlier inscriptions<sup>5</sup> (Damodarpur No. 3....<sup>6</sup> Faridpur Plate ....). In this sense the word is also used in the Arthaśāstra : *Arāja-bīja-lubdhah kṣudrapariśatke virakta-prakṛtir* ...). The Arthaśāstra also gives the name Prakṛti to each of the elements the king, the minister, the country, the fort, the treasury, the army and the ally (*Svāmy-amātya-janapada-durga-kośa-daṇḍamitrāṇi prakṛtayaḥ*), the aggregate of which constituted a state ruled by a monarch. This theory regarding the constituent elements of sovereignty is known to the author of the Ka-mauli *Prāśasti* of Vaidyadeva (*Sapt-āṅga-kṣitipādhitvam*—verse 12). An existing kingdom is endowed with these factors, but where there is no kingdom, no state, no form of recognised political authority, what is to be meant by the '*prakṛtayaḥ*' that placed the crown on the head of Gopāla? Out of the elements mentioned in the Kauṭīliya, although scattered and disintegrated owing to the absence of an acknowledged ruling authority, the *daṇḍa* and the *janapada*, i.e. the soldiery and the country-folk, may have taken part in the election of the king in association with others like those who had served as minister under monarchs whom they later discarded, and it is quite likely that this movement had the financial support (*kośa*) behind it which it needed in order to have proved a success. It can be shown that in the earlier period local leadership in villages and districts had been quite an effective and serviceable factor of the prevailing system of administration. In such limited regions individuals designated *Mahattaras* and various institutions of local-government had been accustomed for centuries to functions of a responsible character. It is probable that local authorities of such types connected with a comparatively small area joined together or took the initiative in electing a sovereign, who afterwards gradually extended his sphere of authority, so that the whole country came to accept his rule. But as there is nothing on record showing such activities on their part as were commensurate with the dignity and importance of which evidence is supplied by the act of the election, it may be that there had been no system in vogue requiring regular meetings of large popular assemblies for any kind of normal constitutional business connected with the central executive of a state. That the people were at first treated with respect even by the head of the state is shown by the importance attached by Dharmapāla to the good opinion of the people which he enjoyed throughout his dominion. The Khālimpur grant of this monarch

5. Prakṛti in the sense of subjects is probably used in the Hāthigumphā inscription of Khāravela, see Ep. Ind., XX, pp. 71 ff.

6. Ep. Ind., XV, p. 136; Ind. Ant. 1910.

unlike the later inscriptions of the family also contain expressions which seem to show that local leaders were held by him in high regard and esteem. The omission of these as well as the non-mention of the part played by the *Prakṛtis* in the establishment of the Pāla dynasty in the subsequent records does not seem to be without some significance. It is not unlikely that the Pālas who had owed so much to the people on the onset of their career consolidated their position so effectively by stamping out the evils of lawlessness and by making conquests abroad that they very soon felt free to go the way they liked without having to seek popular approval or consent. Moreover, having secured the active association of some generations of very capable ministers whose work is praised in the Badal *Prasasti*, the early Pāla kings felt themselves well fortified. Those who had elected Gopāla do not appear to have attempted to devise a new constitution for themselves.

With these introductory remarks we may now proceed to examine the system of administration as it actually worked. (Royal titles remained as in the preceding period. To these usual titles the Sena kings added their own *birudas*. The *birudas* assumed by Vijayasena, Vallālasena, Lakṣmaṇasena, Viśvarūpasena and Keśavasena were respectively Arivṛṣabha-Śaṅkara, Arirāja-Niḥṣaṅka-Śaṅkara, Arirāja-Madana-Śaṅkara, Arirāja-Vṛṣabhāṅka-Śaṅkara and Arirāja-Asahya-Śaṅkara.

(The king's eldest son, as usual, was meant for heir-apparency (*yauvarājyam*). As to his duties and functions no detailed information is supplied. One such Yuvarāja or heir-apparent (Tribhuvana-pāla) carried out the duties of a messenger in connexion with the Khālimpur Plate; another, viz. Rājyapāla, was entrusted with similar business in the matter of the Munger grant.<sup>7</sup> Vīgrahapāla, the Pāla king, abdicated in favour of his son Nārāyaṇapāla who had been acting as the *Yuvarāja* at the time of the renunciation of the throne by his father.<sup>8</sup> The term *kumāra* was applied to a son of the king appointed to a high administrative post such as a provincial governorship. The Kumāra sometimes gave a good account of himself by taking part in the reigning king's military campaigns. Thus Lakṣmaṇasena, in his youth, before his installation as king, appears to have participated in some victorious expeditions (Mādhānagar grant).<sup>9</sup> Rāmapāla used to hold consultations with his sons, particularly Rājyapāla, in connexion with his war-preparations against the

7. Ep. Ind., XVIII, pp. 304 ff.

8. Ind. Ant., XV, pp. 305 ff; A. K. Maitreya, *Gaudalekhamālā*, pp. 56 ff.

9. JPASB., V, pp. 471 ff. N. G. Majumdar, *Inscr. of Beng.*, pp. 109 ff.

Kaivarttas, the collapse of whose power was not only the greatest achievement of his reign but one of the notable episodes of the closing period of Pāla history.

Not only the king and his son<sup>10</sup> or sons were interested in the government, but the former's cousins also sometimes intimately associated themselves with its policy and activities. Dharmapāla and his son Devapāla were each in turn assisted generously by their respective cousins, Vākpāla and Jayapāla, in the prosecution of their military plans. (The Sāhitya Pariṣat grant of Viśvarūpasena gives the names of two Kumāras, Sūryasena and Puruṣottamasena, recording the presentation of a plot of land measuring 10 Udānas by the former to Halāyudha on his birth-day (*varṣavṛddhau*- 1.54),<sup>11</sup> and the gift of another plot measuring 24 Udānas by the other Kumāra.) The Kumāra used to have his own amātyas, styled *Kūmārāmātyas*. Whether such *Amātyas*, distinguished from the *Rājāmātyas*, were to be attached only to those among the Kumāras who had been appointed to provincial governorships, or to all, whether free or in such service, is not clear. From the inscriptions of the earlier period it appears that the *Kumārāmātyas* used to be appointed as *viṣayapatis* or district officers. This was generally regarded as a matter principally reserved for a *Kumāra*. Consequently, those who were to be appointed as *Viṣayapatis* were usually recruited from the rank of the *Kumārāmātyas*. There is no direct evidence in the inscriptions of the period to show that there was any incident of internal dissension among the many royal families whose history is to be found in these records. The Rāmacarita commentary, however, has preserved some authentic information regarding the most serious fratricidal quarrel that broke out during the reign of Mahīpāla II, in the course of which one brother, Rāmapāla seems to have been thrown into prison, and another, Śūrapāla, was probably done away with at a subsequent stage. The death of another king in the family Gopāla III was probably engineered by his uncle Madanapāla, as suggested by verse 18 of the latter's Manahali grant, combined with the evidence of the Rāmacarita, IV. 12. A study of the earlier inscriptions of the Pālas raises the suspicion that a violent struggle for power may have broken out in the royal family after the death of Devapāla, leading to a change in the line of succession. But for want of definite evidence this suspicion cannot be converted into a certainty.)

¶ In the initiation of policy and in the devising of means to give effect to it, the king surely had to turn to his ministers who must

10. Note the term *rājaputra* in the Khālimpur plate.

11. Majumdar, loc. cit., pp. 143 ff.

have lived in the capital of his dominion, so that they might be directly available to him in the conduct of central administration. It may be noted here that none of the Brahmin advisers mentioned in the Badal *Prasasti* has been actually designated a minister, but their functions as referred to in the inscription were actually those of a minister or counsellor. In this inscription Garga claims to have made Dharmapāla the master of the 'whole world' (*Dharmah kṛtas-tadadhipas-tv-akhilāsu dikṣu*). His son Darbhapāṇi made the long stretch of territory extending from the Himalayas to the Vindhya tributary to Dharmapāla's son and successor, Devapāla; this achievement was due to the policy said to have emanated from him (*nītyā*). Darbhapāṇi's son Someśvara who also flourished in Devapāla's reign has been described as *parameśvara-vallabha* or one enjoying the confidence of the sovereign. His son Kedāramiśra is credited with the whole responsibility for the success that attended Devapāla's relations with the Utkalas, the Hūṇas, the Gurjaras and the Draviḍas. Kedāramiśra, his son, was associated with the reign of Śūrapāla, and his son was Guravamiśra whose skill in and devotion to polity won the admiration of his sovereign Nārāyaṇapāla. It was this Bhaṭṭa Guravamiśra who acted as a messenger in connexion with the Bhāgalpur grant of Nārāyaṇapāla. There are two verses in the Badal *Prasasti*, from which one may be tempted to draw the inference that the influence exercised by this Brahmin family was so great that even the Pāla kings who received the benefit of its guidance and advice, particularly in the conduct of their foreign policy, had to acknowledge themselves as inferior to it. Verse 6 states that Devapāla had to wait at the gate of Darbhapāṇi for an interview with him (*tasthau Śrī-Devapālo nṛpatir-avasara-āpekṣayā dvāri yasya*). The next verse records that this king first offered him "a chair of state" before seating himself on the throne (*dattvāpy-analpam-uḍupa-cchavi-pīṭham-agre yasy-āsanam nṛpatir-avarāja-kalpah nānā-narendra-mukut-āṅkita-pādā-pāṁśuh śiṃhāsanam sacakitaḥ svayam-āsaśada*). It is difficult to agree with A. K. Maitreya<sup>12</sup> who holds that the Pālas were most anxious to pay homage to these ministers and to do nothing that might displease them for this reason that they were the leaders of the people who had elected Gopāla to the throne. There is no evidence in this inscription, or in any other, as far as we know, to support the view that these ministers had their power based in a constitutional sense on popular support or that they owed their allegiance or were responsible to any group of people or institution except the king.

As several generations of this Brahmin family were associated

with successive Pāla rulers, it is evident that the hereditary principle was observed in the appointment of ministers. This principle in regard to higher services at least appears to have continued to operate under later dynasties also, viz. the Candras and the Yādavas, as is shown by the Bhuvaneśvar *Prasasti* of Bhaṭṭa Bhavadeva.<sup>13</sup> This inscription probably shows that Bhavadeva, an ancestor of Bhavadeva, served under a Candra king, and his son Govardhana may have also been connected with the same family. But Govardhana's son Bhaṭṭa Bhavadeva served under Harivarmadeva who appears to have been a member of the Yādava family of East Bengal.

Having made some concession for the fact that such statements regarding the honour and prestige enjoyed by these ministers at the hands of their sovereigns occur in an inscription where the panegyric element is too manifest to escape notice, one cannot but be persuaded to hold that there must be a substratum of truth in them, and on such a view of the matter, must attempt to explain what accounted for the dominant position held by these Brahmins in the royal court. One of the most apparent causes of their influence was their learning, which, to judge from the internal data of the Badal Pillar inscription, must have been of an outstanding character; another cause was their wealth which must have secured for them a large following, and the third factor what contributed to their success in the affairs of the state was their efficiency as soldiers. Garga, the adviser of Dharmapāla, was more than Brhaspati, the counsellor and preceptor of the gods (*viśvāśa Brhaspatim yaḥ*-verse 2); his son Darbhapaṇi appears to have been well-versed in the four Vedas (*Vidyā-catustaya-mukh-āmburūh-ātta*...verse 4); Someśvara was like Dhanañjaya in point of prowess and he bestowed liberal gifts on suppliants and through his wealth was able to make his friends dance in joy (verse 3); Kedāramiśra was a great scholar having easily succeeded in acquainting himself with the four *vidyās* (verse 12) who seems to have given away large sums of money to needy persons, thinking that the wealth possessed by him really belonged to them, having been stolen by himself (*svayam-apahṛta-vittam-arthino yo 'numenc*-verse 14); Guravamiśra was a second Paraśurāma (verse 18); sovereign himself expressed his appreciation of his wealth of speech, his knowledge of the *Āgamas*, the *Vedas*, *Jyotiṣa* or Astronomy, etc. (verse 20); he was as much competent to defeat his opponents in assemblies of learned men as in overpowering his enemies in fields of battle (verse 22), however powerful they might be. His scholarship and sacrificial activities are spok-

13. Ep. Ind., VI, pp. 203-207; Inscr. of Beng., pp. 25 ff.

of with evident admiration in the Bhāgalpur inscription of Nārāyaṇa-pāla, where he is mentioned as doing the duties of a messenger (verse 18). Their intellectual qualities, no doubt gave them a commanding position which few rulers could ignore, but the Buddhist monarchs of the Pāla dynasty must have been specially concerned to pay them their homage on the very material ground that through them they could expect to keep the non-Buddhist element in the population in good humour. In the Kamauli *Praśasti* of Vaidyadeva, he is mentioned to have originally served as a *saciva* under the Gauḍeśvara Kumārapāla (end of the 12th century). He is described in that inscription as the sharp-rayed sun unto the lotuses of the assembly of *sacivas* (verse 10)—*Saciva-samāja-saroja-tigma-bhānuḥ*. The nature of his duties and functions before his transfer to Assam is to be understood from the fact that he won a signal victory over the enemy in a naval battle in South Bengal and that the sovereignty of his master was a matter of deep and close concern to him (verses 11-12), which made him the latter's friend, dearer than his life. The functions of this officer must have been those of an intimate adviser or counsellor also qualified to back his efforts towards the success of his master's reign by rendering personal military service. Vaidyadeva was afterwards appointed to rule in the east in place of Tiṅgyadeva who had become disaffected against Kumārapāla. It seems that in those days a minister who had no military qualities had little chance of being recognised by the government as indispensable. Vaidyadeva gave a further proof of his preeminence as a soldier by defeating Tiṅgyadeva in battle, whereupon he was able to feel himself secure as a ruler in Kāmarūpa (*tam-avanīpatim jitrū yuddhe*—v. 14). The term *Mantrī* is also found used in one of the Pāla inscriptions. The *dūta* of the grant recorded in the Bāngarh inscription of Mahīpāla I (10th century) was Vāmana, styled *Mantrī*.

From the preceding discussions it will appear that the supreme position in the state belonged to the king who was advised and assisted by his sons, kinsmen and counsellors (*saciva*, *mantrī*). For further details one should turn to those portions in the available inscriptions which supply designations of various officials to whom all grants of lands were to be communicated in a formal manner. The Khālimpur plate of Dharmapāla, which is the earliest dated record of his reign, gives a list of designations mentioned here in the order in which they occur in the text : *Rājārājanaka*, *Rājaputra*, *Rājāmatya*, *Senāpati*, *Viśayapati*, *Bhogapati*, *Ṣaṣṭhādhiḥṛta*, *Dandaśakti*, *Dandapāśika*, *Cau-rodharanika*, *Daussādhasādhanika*, *Dūta*, *Khola*, *Gamāgamika*, *Abhivaramāna*, *Hastyasva-go-mahiṣ-ājāvik-ādhyakṣa*, *Nāvādhyakṣa*, *Balādhyakṣa*, *Tarika*, *Saulkika*, *Gaulmika*, *Tadāyuktaka*, *Viniyuktaka*.

In the undated Nālandā plate<sup>14</sup> of the same king certain designations which do not occur in the above-mentioned inscription are found included in a similar list, viz. *Mahākārttākṛtika*, *Mahādandanāyaka*, *Mahāpratihāra*, *Mahāsāmantā*, *Mahārāja*, *Pramāṭṛ*, *Sarabhaṅga*, *Kumārāmātya*, *Rājasthānīya*, *Daśāparādhika*, *Uparika*, *Dāṇḍika*, *Kṣetrapāla*, *Prāntapāla*. A comparative study of the two lists will also show the omission of certain titles in the Nālandā plate, which are to be found in the Khālimpur Plate, viz. *Ṣaṣṭhādhikṛta*, *Daṇḍasakti*, *Nāvādhyakṣa*, *Balādhyakṣa*, *Bhogapati*, *Dūta*, *Khola*, *Senāpati*.

The lists given above begin with the designation Rājarājanaka. In the Munger grant of Devapāla the first designation mentioned is that of Rāṇaka. In the Bhāgalpur grant of Nārāyaṇapāla this is preceded by the word 'Rājā,' with which it seems to form a compound, implying a single office. In the Bāṅgarh and other later Pāla inscriptions this place is occupied by 'Rājarājanyaka' but the older form is Rājarājanaka, which occurs in the grants of Dharmapāla. It is thus to be noticed that while it is the grants of Devapāla only which begin with Rāṇaka, the other Pāla inscriptions begin either with Rājarājanka or Rājarājanyaka. In the Rāmpāl copper-plate of Śrī-Candra<sup>15</sup> of the Candra dynasty the designation 'Rāṇaka' occurs next to 'Rājñī.' In the Belāva copper-plate<sup>16</sup> of the Varmans and some inscriptions of the Senas (Barrackpur,<sup>17</sup> Naihāti<sup>18</sup> Ānuliā),<sup>19</sup> both 'Rāṇaka' and 'Rājarājanyaka' are to be found, the latter standing at the head of the list while the former coming in after *Rājñī*. It has been suggested that the term 'Rājanaka' which occurs in the Camba inscriptions is a Sanskritised rather than a real Sanskrit word. This expression in Camba corresponded, as Vogel suggested,<sup>20</sup> to Rāṇā and was applied as a title to the vassals of its Rājās. The Rājataran-giṇī quoted by him shows that the word Rājanaka used to be applied in Kāśmīr almost in the same sense as is denoted by the word 'minister.' If 'Rājanaka' is the same as 'Rāṇaka' or 'Rāṇā', how is it to be explained that both of them (Rāṇaka and either Rājanaka or Rājanyaka) occur together in some of the inscriptions? It may be that 'Rājanyaka' or its apparent corruption 'Rājanaka' is nothing but a diminutive form of 'Rājanya.' Regarding Rāṇaka, it is quite pos-

14. Ep. Ind., XXIII, pp. 290 ff.

15. Inscr. of Beng., pp. 1 ff.

16. Ep. Ind., XII, pp. 37-43; Inscr. of Beng., pp. 14 ff.

17. Ep. Ind., XIV, pp. 282 ff.; Inscr. of Beng., pp. 61 ff.

18. Ep. Ind., XIV, pp. 159 ff.

19. JASB, LVIX, Pl. I, pp. 62 ff.; Inscr. of Beng., pp. 85 ff.

20. Antiquities of Chamba, pp. 110, 121.

sible that the designation denoted some such status as is done by the word 'Rāṇā' in Chamba. That there was not probably a vast difference between the position of a Rājarājanaka and that of a Rāṇaka may be evident from the fact that the place of one appears to have been taken by the other in the grants of the Pālas. The Deopārā *Praśasti* of Vijayasena (12th century)<sup>21</sup> was engraved by Śūlapāṇi, who was a Rāṇaka and the head of the guild of artisans of Varendra. If a king can write poetry, of which there are many instances in Indian history, there is nothing surprising in a prince engaging himself as an artist. But what is significant here is the headship of a guild, which must have been an economic organization, that is claimed for the Rāṇaka. It is probable that members of the princely order, sometimes foregoing political ambitions, preferred to win distinctions in other spheres of life.<sup>22</sup>

The Rājāmātyas were probably the companions of the king, who were men of noble descent. An *amātya* may not have infrequently been employed as a royal adviser. In the absence of definite evidence it will be hazardous to attempt to indicate his position more precisely and how or whether his duties differed from those of *mantrins* and *sacivas*. The designation 'Rājāmātya' is to be understood in contradistinction from the term 'Kumārāmātya', the former apparently being used to denote a certain class of persons serving on the king's staff, while the latter a definite group of officers serving under the Kumāras.

The Senāpati was the highest military officer of the State, the commander-in-chief of the king's Army. The Nālandā grant does not mention this post but that of the *Mahādaṇḍanāyaka*, who probably performed duties similar to those of the Senāpati. The Irdā copper-plate of the Kāmboja king Nayapāla uses the term in the plural number. It is not improbable that the king was still regarded as the highest military authority in the state working with a number of Senāpatis. What is however most significant in connexion with the military department of the Kāmboja King is a phrase in this inscription which definitely shows that the Senāpatis had to carry on their business with the help of a number of *Sainika-saṅgha-mukhyas* or chiefs of corporations of soldiers. It is interesting to note that the Kauṭīliya speaks

21. Ep. Ind., I, pp. 307 ff.

22. The Bihār Buddhist brass image inscription of the reign of Nārāyaṇa-pāla records a gift made by Rāṇaka Thāruka, a resident of Uḍaṇḍapur, see R. D. Banerji, Ind. Ant., XLVII, p. 110. The dūta of the grant recorded in the Ganjām Plate of Daṇḍimahādevī is a Rāṇaka named Dāṇālava, see Ep. Ind., vol. VI, pp. 137 ff.



of the Corporations of the Kāmbojas, the Surāṣṭras and the Kṣatriyas, devoted to trade and industry as well as to the practice of arms as a means livelihood (*Kāmbhoja-Surāṣṭra-Kṣatriya-śreny-ādayaḥ Vārt-tāsāstropajivinah*).<sup>23</sup> The Irdā grant may thus be regarded as incidentally furnishing a piece of valuable evidence about the identification of the Kāmbojas who established their political power in Bengal in the tenth century A.D. and also in regard to the continuity of their military institutions as late as that period. The *Śaṣṭhādhikṛta* was in charge of the department entrusted with the work of collecting for the king one-sixth share of the produce from the cultivators. The title '*Daṇḍaśakti*' occurs only in the Khālimpur Plate. Its place in the list is taken by '*Dāṇḍika*' in the other inscriptions of the period, even in the Nālandā grant of Dharmapāla himself. Probably the same office is denoted by both the expressions. The *Daṇḍaśakti* appears to have been the officer in charge of the Law of Punishment. The *Daṇḍapāśika* of the Khālimpur and Nālandā plates of Dharmapāla must have filled the same office as that of the *Daṇḍavāsika* who appears in the other inscriptions. The expression is derived from 'daṇḍa-pāśa' i.e. 'rod and rope.' The form '*Daṇḍavāsika*,' according to Vogel<sup>24</sup>, is due to 'vernacular influence'. The title describes rather crudely the functions of the Chief Police Officer. The *Cauroddharanika* was the highest officer concerned with the apprehension of thieves, robbers and brigands, his functions being the same as those of the *Cauroddhartā* or *Cauragrāha*, mentioned in the Hindu law-books.<sup>25</sup>

It has been found difficult to understand the implications of the expression '*Dauḥśādhasādhhanika*' or its several variants, to be met with in all the inscriptions of the period. It is not clear if it sometimes refers to the functions of two different officers Dauḥśādha and Sādhhanika. The latter term can be traced in one of the Faridpur grants<sup>26</sup> by which some nautical officer may have been meant. The

23. XI. I. 160. It is difficult to agree with K. P. Jayaswal that the term *Śreṇī* used here is the name of a particular republic like that of the Kāmbhojas etc., see his *Hindu Polity*, Pt. I, pp. 62. I am, however, inclined to think that the term Kṣatriya here used is a tribal name. Regarding the identification of the Kāmbhojas of the Kautiliya, See H. C. Raychaudhuri, *Political History*.

24. *Antiquities*, loc. cit, p. 129.

25. Jolly, *Hindu Law and Custom*, p. 271.

26. *Ind. Ant.*, 1910, p. 211 n. According to Pargiter, a Sādhhanika was "some agent, attorney or factotum, appointed by the lord of the district to transact business generally on his behalf and that he was a person of higher authority

form *Dauḥsādhyasādhanika* occurs in the Rāmpāl grant of Śrī-Candra, *Dauḥsādhanika* in the Belāva grant of the Varmans, and most of the Sena inscriptions, *Mahāduḥsādhika* in the Edilpur grant of Keśava-sena and *Mahādauḥsādhasādhanika* in the Pāla grants excepting the grants of the reign of Dharmapāla, where the expression is used without the prefix 'mahā-'. It cannot be doubted that in most cases, if not in all, the duties and functions of a single officer are meant. The construction of the phrase makes it quite clear that whatever his actual work might have been, its extremely difficult or delicate character must have been its most prominent feature. The term is sometimes interpreted to mean the designation of an officer entrusted with the care of those who were mentally defective.<sup>27</sup>

The Dūta held the post of an ambassador. The Irdā grant of the Kāmboja King Nayapāla seems to show that a Dūta, who must have been employed as a representative of his sovereign at the Court of another king, was assisted by a number of *Gūḍha-puruṣas* (officers of the Secret service).<sup>28</sup> The designation was also used to mean the office of a messenger to which one was temporarily appointed for the purpose of communicating the king's sanction and order regarding a grant and getting it executed in the form of a legal document by local officers. The term '*Khola*' means in Sanskrit literature a lame person. What the functions of the officer designated *Khola* were have not yet been correctly ascertained. Among the Bengal inscriptions the title occurs in the Khālīmpur grant, and curiously enough, once again in the Rānganj inscription of the 13th century. The deriva-

than the officer who looked after the Vyāpāra," see *ibid.* pp. 212-213. Cf. "Karturag-oṣṭra-nausādhanika..." in the Sone East-Bank Copper-plate of Indradeva and Udayarāja, see Harit K. Deb, *Ep. Ind.*, XXIII, pp. 222 ff.

27. *Ep. Ind.*, XXIII. In the chapter dealing with the organisation of espionage in Kauṭīliya's *Arthaśāstra*, the phrase *daṇḍakara-sādhanaādhikāreṇa yā janapada-vidveṣaṁ grāhayet* occurs. Shama Sastry's translation (see p. 27) seems to be defective, for it does not pay sufficient attention to the implications of 'adhikāreṇa.' It may be possible that there was a department authorised to impose fines or oppressive taxes for the sole purpose of creating political troubles to the advantage of the king. 'Sādhayet' is used in the *Arthaśāstra* in another passage (V, 6) in connexion with the task of tactically handling a disloyal chief (*āpat-pratikāreṇa yā sādhayet*). A *Sāadhanika* may be presumed to have been appointed to carry out difficult state business involving much personal risk.

28. There are two chapters in the Kauṭīliya, respectively entitled '*Gūḍha-puruṣ-otpattih*' and '*Gūḍha-puruṣa-pranidhi*' (I, 11-12) dealing with spies and the organisation of the department of espionage.

tive meaning of 'Gamāgamika' is 'one who goes and comes,' and that of 'Abhitvaramāṇa' 'one who hurries.' It may strike one that the officers designated by these titles could not have been of a high rank, since their functions, understood etymologically, merely carry with them a sense of physical efficiency and movement. But such a view cannot possibly be entertained as they have been grouped with those among whom the most responsible officers can be recognized. It is probable that the Gamāgamika was appointed to carry out functions of an urgent character in connexion with the diplomatic department of the State, requiring frequent visits to neighbouring kingdoms or to the dominions of vassals. The Abhitvaramāṇa's duty was probably to be actively responsible for an expeditious dispatch of official business of either some or all the departments of the State.

There were superintendents to deal with matters relating to different classes of animals, viz. elephant, horse, cow, buffalo (*Hasty-aśva-go-mahiṣ-ājāvikādhyakṣa*—Khālimpur Plate). The functions of this officer became more limited with the creation of another post concerned with the care and maintenance of those animals specially useful to the Army, viz. elephant, horse and Camel (Nālandā). The *Nāvādhyakṣa* and the *Balādhyakṣa* were the heads respectively of the department of navy and that of land forces. The term 'bala' in '*Balādhyakṣa*' may have the same sense as it bears in the expression '*hasty-aśva-oṣṭra-bala-vyāpṛtaka*.' It may be noted here that the latter phrase does not occur in the Khālimpur plate, as in the Nālanda plate of the same monarch it does occur with the omission of '*balādhyakṣa*.' It will however, be difficult to conclude from this that the functions of the two officers were the same, for part of the duties at any rate must have been carried out by the officer designated *Hasty-aśva-go-mahiṣ-ājāvik-ādhyakṣa*. There cannot be any doubt that this last named officer and the *Balādhyakṣa* employed by Dharmapāla carried out their work in mutual co-operation, the latter doing some additional duties in connexion with the management of Infantry. The military headship of the entire army must have belonged to the *Senāpati*. Among other duties of the *Nāvādhyakṣa* must have been those connected with the construction of *nan-vūlakas* or bridges of boats which are frequently mentioned in the Pāla inscriptions as stretching across the Bhāgīrathī and other rivers of strategic importance, as well as their maintenance and upkeep. Navy played an important part in the military history of the Pālas and the Senas. There are references in the Kamauli grant of Vaidyadeva<sup>29</sup> and the commentary of the Rāmacarita to naval engagements or to crossings of rivers

by the Pāla Army, and in the Deopārā inscription of Vijayasena to a successful military undertaking during his reign involving the use of boats (*pāścātya-cakra-jayakeliṣu yasya yāvad-Gāṅga-pravāham-anu-dhāvati nau-vitāne*).

The term '*Tarika*' means a ferryman, but the officer thus styled must have been more than a mere ferryman. The grants of Devapāla, contain two designations, *Tarika* and *Tarapati*, which seem to be allied in meaning. The *Tarika* appears to have been placed in charge of ferry service, probably a source of revenue,<sup>30</sup> and was besides responsible for carrying out those regulations which may have existed in regard to the movements of private individuals from one place to another. The *Tarapati* serving under Devapāla may have been responsible for the construction of ferries, their development and upkeep. The *Śaulhika* was the Superintendent of tolls or customs, and the *Gaulmika* performed the duties of the Superintendent of forests.

It should be pointed out here that in the Khālimpur grant there is no mention of '*Sāmantas*' in its list of officials. In the other grants of the Pālas an officer styled *Mahāsāmanta* appears, including the Nālandā grant of Dharmapāla. The Khālimpur grant shows, however, the existence of this office by reporting that the gift recorded in that inscription was made at the request of the *Mahāsāmantādhipati*. Such an officer must have been appointed to exercise a general control over the feudatories; he was the link through which the king's contact with the *Sāmantas* was maintained. It may be suggested here that at least some of the Rāja-Rājanakas present at the king's court were a group of *Sāmantas* who used to spend most of their time at the imperial capital, with their military quotas placed at the disposal of their sovereign (*udicin-aneke-narapati-prābhṛtikṛtāprameya-haya-vāhinī*—). The presence of many such subordinate rulers in the immediate neighbourhood of the king is alluded to in the passage: *dik-cakrayāla-bhūbhṛt-parikaru-visarad-vāhinī-durvvilo-kas-tasthau Śrī-Devapāla-nṛpatir-avaśar-āpekṣayā dvāri yasya* (verse 6) occurring in the Garuḍa Pillar inscription of Bhaṭṭa Guravamiśra. The wives of such *Sāmantas* may have been referred to as Rājñīs in the lists of officials contained in our inscriptions. What arrangements these absentee lords made for the government of their own people are, however, not known. If these princely persons were really among those who are definitely known to have been officers of the Crown to whom every royal grant had to be communicated, it will appear that they along

30. See Kauṭīliya Arthaśāstra—II, 6 where the Samāhartā or Collector of revenue is asked to attend to Sītā, bhāga, bali, kara, vaṇik, nadīpāla, tara nāvaḥ, paṭṭana, vivita, vartanī, rajjū, corarajjū.

with the others had been drawn into the orbit of the central administration of the State. Another noteworthy point is that the king and his family together with probably certain ministers also appear to have been treated as a body entirely separated from the group of officers noted in these inscriptions. The king making a grant himself, it is true, need not be told about it, but members of the king's family including the Kumāras if any, the Yuvarāja, the queen or queens, should have been mentioned among those to whom such communications had to be made, had they not been regarded as a compact body distinct even from the highest officials of the State. Another noteworthy point is that the king and his family together with probably certain ministers also appear to have been treated as a body entirely separated from the group of officers noted in the inscriptions. Is it possible that the king with the responsible members of his family, his kinsmen and some prominent ministers also, formed a sort of inner chamber acting in close concert, isolating themselves from the aristocracy of officials? The Irdā copper-plate of the Kāmbojas, however, shows that their king treated himself as solely responsible for a grant and did not associate with his family or any one of the highest officials as is shown by the fact that the grant made by him to be communicated to the queen (*mahiṣī*), the crown-prince (*Yuvarāja*), the ministers (*mantrins*), the priest (*Purohita*), etc., in the first place, and secondly, to the *adhyakṣas* or departmental heads including the *Senāpati* with their staffs (*Karāṇas*).

The picture of the administrative condition of the early Pāla period, as can be framed on the evidence of the Khālimpur grant, of Dharmapāla, does not agree in every way with the one contained in the other inscriptions of the dynasty, including even the Nālandā copper-plate grant issued by the same monarch. The official designations to be found mentioned in his Nālandā grant are repeated with slight occasional changes in all the other records of this dynasty. Only in the Bhāgalpur grant of Nārāyaṇapāla the list given contains the additional designations: *Mahāsāndhivigrahika*, *Mahākṣapāṭalika* and also *Rāṇaka*, besides *Rājaraṇaka*. This list also omits *Tarabati* and compounds *Rājasthānīya* with *Uparika*. Moreover, in the Manahali grant of Madanapāla (12th century) there is no mention of *Mahādanḍanāyaka*. The term '*Amātya*' is occasionally replaced by the more explicit form *Rājāmātya*. The Bāngarh grant probably contains a reference to the post of *Mahāmantri*, but this is not to be found in the usual list of officers. Against the designation '*Hastyakṣa-go-mahiṣ-ājāvik-ādhyakṣa*', to be noticed in the Khālimpur plate, as already mentioned, two designations are used in these grants including the Nālandā grant, viz. *Hasty-aśu-oṣṭra-bala-vyāpṛtakā* and *Kiśora-vāḍava-*

*go-mahiṣ-ājāvik-ādhyakṣa*. Although the Nālandā grant is not dated, the similarity between its administrative portion and the lists of officers to be found in the records of the Pālas after Dharmapāla, makes it quite probable that this grant was issued later than the Khālimpur grant dated in the 32nd year of his reign. In all these grants, as already shown, some of the official designations are prefixed by 'Mahā'. Whether this addition is merely ornamental, or is to be taken as signifying a distinctive status superior to that of others who may have been given any such designation without the prefix, will remain a matter for speculation for the present, but it is quite possible that there was a tendency in the administrative system towards greater organization, further concentration of power, and unity of control, which manifested itself in the appointment of heads even among some of the highest ranks of officials.

(To be continued)

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## SOME ANCIENT INDIAN TRIBES

By BIMALA CHURN LAW

The Kuntalas are twice mentioned in the Mārkaṇḍeya Purāṇa list of tribes, once in connection with the peoples of Kāśī and Kośala (lvii, 33), which means that they were a Madhyadeśa tribe, and elsewhere (lvii, 48) along with the Aśmakas, Bhogavardhanas, Naiṣikas, Andhras, etc., which suggests that they were a people of the Deccan. The Bhīṣmaparva of the Mahābhārata, however, seems to locate the people in three different regions. One verse (ix, 347) seems to locate them in the Madhyadeśa, while another (ix, 367) in the Deccan which is also upheld by a reference apparently to the same people in the Karṇaparva (xx, 779). A third reference in the Bhīṣmaparva (ix, 359) suggests location of the tribe somewhere in the western region. Cunningham suggests (A.S.R. xi, 123) that the country of the Kuntalas of the Madhyadeśa should be identified with the region near Chunar which he calls Kuntīlā. Whatever be the merit of the identification, the Kuntalas of the Madhyadeśa do not seem to have attained to any historical eminence. The Kuntalas of the west also have hardly any place in history. But the Kuntalas of the Deccan appear to have risen to considerable importance in historical times as will be evident from subsequent details.

Literary and epigraphic references have now proved beyond doubt that there were several families of the Śātakarṇis of the Deccan, and one or more of these families ruled over Kuntala of the Kanarese districts before the Kadambas (Rai Chaudhuri, PHAI, 4th edn. 339-40). One member mentioned in the Matsya Purāṇa list is actually called Kuntala Śātakarṇi, a name that is commented upon by the commentator of Vātsyāyana's Kāmasūtra. He takes the word "Kuntala" in the name Kuntala Śātakarṇi to mean "Kuntala-viṣaye jātatvāt tat-samākhyah". A Śātavāhana of Kuntala is also referred to by the Kāvyamīmāṃsā of Rājaśekhara. This king ordered the use of Prākṛit in exclusion of every other language by the ladies of his inner apartments. He has often been identified with king Hāla who hailed from Kuntala (Kāvyamīmāṃsā notes, p. 9).

According to certain Mysore inscriptions (Rice, Mysore & Coorg from Inscriptions, p. 3; Fleet, Dynasties of the Kanarese districts, 284 f. n. 2), the Kuntala region included the southern part of the Bombay



Presidency and the northern portion of Mysore, and it was ruled at one time by the kings of the Nanda dynasty.

Kuntala figured in history also in later times. An Ajantā inscription credits the Vākāṭaka king Prthivīśena I with having conquered the lord of Kuntala. Another Vākāṭaka king Hariṣeṇa claimed victories over Kuntala along with Lāṭa, Avanti, Andhra, Kalinga etc.

The Vāṭadhānas are mentioned in the Mārkaṇḍeya Purāṇa, once along with the Vāhlikas, the Ābhīras, the Aparāntakas and the Śūdras, all grouped in the North-west (lvii, 36), and at another place, along with the Śiviḍas, Dāserakas, Śavadhānas, Puṣkalas, Kairātas etc, all grouped as peoples of the North (lvii, 44). The Vāyu Purāṇa, erroneously no doubt, reads Vāḍhadhānas (xlv, 115).

That they were a Punjab tribe is also borne out by the evidence of the Mahābhārata. There the Vāṭadhānas are said to be derived from an eponymous king Vāṭadhāna who belonged to the same *Krodhavaśa* group as the eponymous kings of the Vāhlikas, Madras and Sauvīras (Ādiparva. lxvii. 2695-9). The Sabhāparva locates their country in the western region (xxxi, 1190-91), and the Udyogaparva seems to suggest that they joined the side of the Kurus in the great Bhārata war (xviii, 569-601). The people are mentioned elsewhere in the epics as well, e.g. Sabhāparva, i, 1826 : Udyogaparva, iii, 86 ; Bhīṣmaparva, ix, 354 and Droṇaparva, xi, 398. Vāṭadhāna-dvijas were amongst those who were conquered by Nakula (Sabhāparva, xxxi, 1190-1).

According to Manu, Vāṭadhāna was the offspring of an out-caste Brāhmaṇa woman (x, 21), but Pargiter points out that this "is no doubt an expression of the same arrogance which in later times stigmatised all the Punjab races as out-castes (Mārkaṇḍeya Purāṇa, p. 312 notes).

The Mārkaṇḍeya Purāṇa list mentions the Ātreyas along with the Bharadvājas, Puṣkalas, Kuśerukas, Lampākas etc. as peoples of the North (lvii, 39-40). The Matsya Purāṇa reads Atris who are undoubtedly the same as the Ātreyas (cxiii, 43).

The Ātreyas are also mentioned in several places in the Mahābhārata. They are represented as a family of Brāhmaṇas dwelling in the Dvaitavana (Vana P. xxvi, 971) not far from the Sarasvatī (Vana P. clxxvii, 12354-62). They are also mentioned in the Bhīṣmaparva list (ix, 376), and the Harivaṃśa seems to suggest that the people originated from the ṛṣi Prabhākara of Atri's race (xxxi, 1660-68) whence came the name of the tribe Ātreya.

They were evidently the people of Śūrpāraka. The Mārkaṇḍeya The Śūrpārakas list (lvii, 49) reads Sūryārakas which is evidently a mis-

take, but all the Purāṇas agree in placing them in the west where lived the celebrated sage Rāma Jāmadagnya (Mbh. Vana P. lxxxv, 8185). But the Mahābhārata also locates them in the South (Śabhā P. xxx, 1169; Vana P. lxxxviii, 8337) because it bordered on the Southern Sea in the western region (Śānti P. xlix, 1778-82). The region situated near Prabhāsa (Vana P. cxviii, 10221-7) included the country around the mouth of the Narmadā (Anuśāsana P. xxv, 1736). It was the sage Rāma Jāmadagnya who is credited with having built the city of Śūrpāraka (Hari V. xcvi, 50).

Śūrpāraka is mentioned in one of the inscriptions of Śaka Uṣa-vādāta and is undoubtedly the same as Suppāraka of Pali literature where it is described as a great sea-coast emporium identified with Sopārā of early Greek geographers.

The Purāṇas make a mess in the mention of this people. The Mārkaṇḍeya Purāṇa in one context reads it as Nāśīkas (lvii, 48), but in the same canto in another context reads it as Nāśikyāvas (lvii, 51), and still in another place correctly as Nāśīkyas (lviii, 24). There is no doubt that one and the same people of ancient Nasik is meant. The Vāyupurāṇa reads Nairṇīkas (xlv, 127) where Mārkaṇḍeya reads Nāśīkas, and instead of Nāśikyāvas of the same source, it reads Nāśīkyas. The Matsya-purāṇa reads Vāsīkas (cxiii, 50). This confusion makes it evident that the people and the region were not so widely celebrated. This people moreover does not seem to have been known to the authors of the Epics.

What is true of the Ātreyas seems to be equally true of the Bharadvājas or Bhāradvājas. The Mārkaṇḍeya list (lvii, 39-40) mentions the tribe along with the Ātreyas, Puṣkalas, Lampākas etc. and locates them in the North. They are also mentioned in the Bhīṣmaparva list (IX, 376) in the same context as that of the Ātreyas; the Great Epic tradition connects Bhāradvāja with the upper Gangetic region near the hills (Ādip. cxxx, 5102-6; clxvi, 6328-32; Vanap. cxxxv, 10700-728; Śalya p. xlix, 2762-2824), and Bhāradvāja, the ṛṣi was evidently the originator of the race or tribe. Like the Ātreyas, it is tempting to connect the people of various caste divisions of present-day-India claiming to belong to the Bhāradvāja gotra with the Bhāradvāja tribe.

The Lampākas are mentioned in the Mārkaṇḍeya list (lvii 40) along with the Kuśerukas, Śulakāras, the Culīkas, Jāguḍas etc. as a people of the North. The Matsya Purāṇa reads (cxiii, 43) Lampakas instead, which is no doubt wrong. The Mahābhārata (Droṇa p. cxxi, 4846-7) also mentions the tribe and seems to suggest that they were a rude mountain tribe like the Daradas and Pulindas. Long ago Cunningham identified the

region of the Lampākas with modern Lamghan, hundred miles to the east of Kapisene, north-east of Kabul which practically upholds Lassen's identification of the place with Lambagae, south of the Hindukush in modern Kafiristan.

If the tradition contained in Hemacandra's *Abhidhāna-Cintāmaṇi* is to be believed, then Lampāka seems to have once been the centre of the Sai-wang or the Śaka-Muraṇḍa people (Lampākāstu Muraṇḍāḥ syuh).

The Arbudas must have been the people dwelling on and around the Arbuda mountain which is generally identified with modern Mt. Abu which is the southern end of the Aravalli hills.

The Khasas are described in one place of the *Mārkaṇḍeya Purāṇa* (lvii, 56) as "parvataśrayiṇaḥ" or dwelling along the mountains, and in another place as located in the middle of the tortoise along with the Śālvās, Nīpas, Śakas, Śūrasenas etc. (lviii, 6). Epic tradition as contained in the *Mahābhārata* brands them as a rude half-civilised tribe along with the Śakas, Daradas etc. (*Sabhā* p. li, 1859), while the *Harivaṃśa* records the reason why they were considered as such. It says that the people were once defeated and degraded by King Sagara (xiv, 784) and were hence regarded as *mlecchas* (xcv, 6440-41). *Manu* also says that they were originally Kṣatriyas, but were later on degraded by the loss of sacred rites and the absence of brāhmaṇas in their midst (x, 43-44). The *Sabhāparva* of the *Mahābhārata* places the people near the river Śailoda between the Meru and Mandāra mountains (li, 1858-9). If the river Śailoda is the same as Śailodaka of the *Matsya Purāṇa* (cxx, 19-23), then the Khasas seem to have originally settled somewhere in Tibet or further north-west. Much later, in historical times, the Khasas are mentioned with some other tribes in the inscriptions of the Pālas and Senas of Bengal in such a way as to suggest that they enlisted themselves as mercenary troops in the army of the kings of those dynasties.

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# NANA, THE MOTHER GODDESS IN INDIA AND WESTERN ASIA

By BAIJNATH PURI

The representation of the Goddess *NANA* or *NANAIA* on the Kuṣāṇa coins has baffled the numismatists even to this day. All of them thought that the Goddess on account of her peculiar name was either a Greek or a Zoroastrian Goddess. Sir Aurel Stein, who was the first to throw some light on this topic remarked in his paper as follows : "In the ranks of Zoroastrian deities, the Goddess *NANA* very frequent on the coins of all Turukṣa kings, cannot fairly claim a place. Although her cult is found in various localities of Iran, as over a large part of Western Asia, there can be little doubt as to her non-Iranian origin. She was certainly never recognized by the Zoroastrian church and a few instances of her amalgamation with the Avestic Anāhitā in the west and in a syncretistic age are by no means sufficient to prove that her worship in Indo-Scythia was in any way connected with Zoroastrian cult. It evidently preceded and outlasted the latter. Her name is found on the coins of an earlier king, who makes use of the type of Eucratides and it still occupies a prominent place on those of Vāsudēva from which all the Zoroastrian types have already disappeared." (I.A. 1888 p. 98).

From the above account it appears that *NANA* did not belong to the Zoroastrian pantheon. This is confirmed by the fact that she continued to appear on the coins of Vāsudeva who certainly had no Zoroastrian type in his coins. Therefore she does not appear to be an Iranian Goddess and we shall have to find out her identity somewhere else. In this connection we have to notice a type of Huviṣka's coin where the Goddess *NANA* and the God OHPO appear facing each other. This type was previously noticed by Sir Alexander Cunningham (C.C.P.M. p. 207, No. viii.) and also by Whitehead (C.C.P.M. p. 197, No. 135) but none of them discussed the significance of it. It therefore remained a mystery. OHPO was however identified by Prof. D. R. Bhandarkar with Umeśa or Lord Śiva (Carmichael Lectures, 1921 p. 17). This identification was perfectly correct because of the presence of Nandī along with OHPO who also holds the trident. Now the question naturally arises : who could be this Goddess *NANA* who is fit to be associated with Śiva ? It first appeared to me that this Goddess *NANA* was Durgā because

on one coin of Sapaleizes the name *NANAIA* is associated with a Lion (Whitehead, p. 168). Again, in a type of coin of Huviška she is portrayed as holding a sword at waist and a sceptre and patera (Gardner p. 146 No. 84). I discussed the matter with Dr. Bhandarkar to whom this interpretation was not acceptable for the simple reason that *NANA* or *NANAIA* and Durgā do not have any correspondence in sound. He however referred me to the word *NANĀ* in the Vedic Sanskrit Lexicon where it means "a mother," e.g. in the Ṛgveda (IX. 112.3) we have a verse : काव्हं ततो भिषगुपलप्रक्षिणी नना meaning 'A bard am I, my father a physician, my mother a grinder (of corn) on stone' (See Madras Lectures of Prof. Bhandarkar 1938-39, p. 16).

Now in the Ṛgveda there is another word expressing the sense of 'mother' namely *ambā* or *ambitamā*. Thus the Goddess Ambā or Ambikā was a Mother Goddess in the Ṛgvedic period. Her association with Rudra, as pointed out by Dr. Bhandarkar, is clear from a reference in the Vājasaneyi-Saṁhitā (III. 58) where she is mentioned as the Sister of Rudra (III. 58). The mythological association of the Goddess Ambikā with Śiva has however varied at different periods. In the Śatapatha Brāhmaṇa (II. 6.2.9) Ambikā is mentioned as the sister of Śiva. But in later periods Ambikā is mentioned in a different relation to Śiva. In the Amarakoṣa there is a śloka :

शिवा भवानी रुद्राणी शर्वाणी सर्वमङ्गला ॥

अपर्णा पार्वती दुर्गा मृडानी चण्डिकायिका ॥ (I. 37-38)

The position of Ambikā is further explained as अम्बिका पार्वती-मात्रोर्ध्वतरादस्य मातरि" Here she is taken in three senses, viz. as the name of Pārvatī, as mother, and as mother of Dhṛtarāṣṭra. In this case her relation with Śiva would be that of wife. Howsoever the mythological conception developed itself later on, her original association with Rudra as Sister, and Ambā of the world, that is, Mother Goddess, remains incontrovertible, and seems to have continued right up to the time of Huviška, because, as mentioned above, *NANĀ* (=Ambā) is associated with OHPO=Umeśa=Husband of Umā. Further as was first pointed out also by Dr. Bhandarkar, Umā occurs on a coin of the Kuṣāṇa sovereign showing clearly that Umā and Nanā did not come to be identified up till his time.

Thus it is clear that *NANĀ* in the Vedic Sanskrit language meant 'a mother' which meaning was also applicable to Ambā or Ambitamā and therefore the goddess NANA was none else than the goddess Ambā who is mentioned as the Mother Goddess in the Ṛgveda and whose

association, with Rudra in whatever capacity it may be, is clear from Vedic Literature.

A question which now arises is whether the iconographical conception of *NANA* as indicated on the coins can be identified with the iconographical conception of Ambikā. According to the Hindu Iconography Ambikā is seated upon a Lion and has three eyes. She has in one left hand a mirror. Her one right hand is held in the *Varada* pose. In the other two hands she holds the sword and shield (T. Gopināth Rao : Hindu Icon. Vol. I, Pt. II, p. 358). Now we have already seen that on one coin of Sapaleizes *NANAI* appears along with a Lion and the name of the Goddess alone shows that before the Kuṣāṇas she was represented with the *Vāhana* which came to be closely associated with her in later times.

Our investigation into the the NANA-AMBĀ cult will be incomplete unless we take into account what figure the goddess cut in the West. In this connection the following remarks of Jasrow are very important : "The oldest cult of the Mother-Goddess, so far as our material goes, appears indeed to have been in Uruk where she is known as NANA but we may be quite sure that the cult was never limited to one place. The special place which *NANA* has in the old Babylonian pantheon is probably due to the peculiar development taken by the chief deity of that centre, Anu, who as we have seen before, became an abstraction, the God of Heaven presiding over the upper realm of the universe. Her temple at Uruk known as *E-anna* 'the heavenly house' and revealing the association of the goddess with Anu as a solar deity became one of the most famous in Euphrates Valley. It is in connection with the cult of Nana that we learn of a phase of the worship of the Mother Goddess which degenerates into the obscene rites that call forth amazement of Herodotus (Book I. § 199). As the Mother-Goddess *NANA* or Ishtar is not only the source of fertility displayed by the earth and the kind gracious mother of mankind, but also the goddess of love, the Aphrodite of Babylonia. The mysterious process of conception and the growth of embryo in the mother's womb gave rise at an earlier period to rites in connection with the cult of the Mother-Goddess that symbolised the fructification through the combination with the male element" (The Civilization of Babylonia and Assyria, p. 233).

The views expressed above by Jasrow fit most excellently in the case of NANA-AMBĀ cult of India. In this country she was associated with Rudra who in the Kuṣāṇa period became known as OHPO=Umeśa. Here also the worship of the Mother-Goddess has degenerated into obscene rites. She is looked upon not only as the source of fertility but also as Bhavānī i.e. the wife of the God of pro-

creation. It is therefore no wonder if what happened at Uruk in the case of *NANA* happened also in India in the case of practically the same Goddess *NANA-AMBĀ*. I have discussed all these details with Dr. D. R. Bhandarkar who on the whole agrees with me in my conclusions and wonders how this point of view did not suggest itself to the erudite writers who have made valuable contributions to the classical volumes of *Mohenjo-daro and the Indus Civilization* and who are conversant with Egyptology and Assyriology.

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## GERMANIC AND SANSKRIT\*

By BATAKRISHNA GHOSH

No nation, at its first appearance on the stage of history, received such a glorious accueil as the Germans, for no less a person than Julius Caesar has left us in the chronicle of his Gallic wars the earliest description of the Germanic tribes and their manners and customs. Towards the end of the first century A.D., Cornelius Tacitus wrote his famous book *Germania*, which is the first social history of the Germans, written by an admiring foreigner. Germany has changed much since the days of Tacitus, but the Germans have on the whole retained to the present day those qualities, which, even without the veneer of civilisation to set them off, so powerfully impressed the culture-worn statesmen of the antique world. The Roman imperialists of the post-Christian era were living on the credit of their fathers. They bought over and harnessed to their service the brains of the Greeks and the brawn of German mercenaries, and thus managed to stagger on for a few centuries longer. They even constructed fortifications along their frontiers to keep out the barbarian hordes. But nothing was of any avail. In the fifth Century the flickering flame of antique civilisation was finally extinguished when Rome was permanently occupied by the Germans. The Dark Age now set in.

It is curious to think in the retrospect that the only power which profited by the gloom and obscurity of the Dark Age was the Christian Church. Taking full advantage of the general bewilderment following the cataclysm, the Christians tirelessly preached that the end of the world was near. They preached that in times such as these the pursuit of arts was futile, and the only thing that counted was the grace of God, of which the monopoly was held by the Christian Church. The success of this persistent propaganda in the demoralised world of the day was immense, and the whole of Europe was Christianised within a few centuries. But almost all the converted Europeans were uncivilised, and the fierce German and Germanic princes who in the Middle Ages ruled all the countries from Syria to England, were in truth mere tools in the hands of the astute cardinals of Rome. The Church dignitaries no longer allowed themselves to be bothered by the noble ideals of the early

\* Students who might care to read this paper are expected to have first read my "Linguistic Introduction to Sanskrit" (LIS.)—To avoid confusion, length of Germanic vowels has been throughout indicated by bar above.



Christians, and in their unholy zeal to establish the supremacy of the Church over the State, they adopted the policy of "divide and rule"—the basic maxim of the impotent imperialism of the later Romans. For a thousand years Europe was ravaged by wars of religious communalism, the chief responsibility for which must be laid at the door of the greedy Christian Church. The greedy Church soon threw away all semblance of decency and opened a vast monopoly trade in indulgences, and actually issued indulgence-bonds after the fashion of modern joint-stock companies. Sometimes these bonds were floated through the leading banking houses of the day like the Fuggers, the Rothschilds of the Middle Ages. A more depraved condition of a Church can be hardly imagined. It was all the more deplorable, because in spite of all its imperfections the Church was the only organisation in the Middle Ages within which the arts of peace could still be cultivated. The overthrow of this utterly corrupt and all-powerful Church was therefore absolutely necessary if the European civilisation was to be saved: This was achieved, again, by the Germans, led by Martin Luther, who is also the maker of the modern German language!

European history from the beginning of the Christian era to the present day is but a long sad story of frustrated efforts to achieve a synthesis between the fine but self-centred Graeco-Roman culture rating wit higher than wisdom, and the emotional individualism of the Germans, always straining for the intangible, often defeated, but never daunted by suffering. In disappointment and despair, and in the earlier days out of sheer ignorance, the Germans destroyed much of the heritage of older cultures; but they also broadened the basis of civilisation as a whole. Germany has produced the greatest philosophers and musicians of modern Europe, and if the world has ever seen a man of perfect culture it must have been in the person of the German poet Goethe. Such were, and still are, the Germans, whose languages we shall try to describe in this chapter.

As in the case of Greek, so in the case of Germanic too, we shall have to start with a large number of dialects, some of which, such as English, Dutch, Danish etc., have gained the status of independent languages. Primitive Germanic is merely a construction of the linguists.

The Germanic dialects are divided primarily into three groups: Nordic, Eastern Germanic, and Western Germanic. Of the Eastern Germanic dialects only Gothic—more precisely, the dialect of the western Goths—is known to us from the Bible-translation of Ulfilas (4th century A.D.). This solitary literary monument in Gothic is however of the highest importance for Germanic philology, for Gothic is the oldest Germanic dialect that we know. Gepides, Vandals, Burgundians and other Eastern Germanic tribes are well known in history, but they have left no literary monument behind. The dialects of the

Scandinavian Countries and Iceland are called Nordic, and the dialects of the tribes who occupied the territory corresponding roughly to modern Germany, Switzerland, Holland and England together constitute the group called Western Germanic.

Nordic however is characterised by at least one striking linguistic innovation common with Eastern Germanic, and each of these two groups has preserved a number of primitive characteristics which Western Germanic has given up. On these grounds it is sometimes claimed that Nordic and Eastern Germanic should be considered as one group. Whatever that may be, the linguistic innovation common to Nordic and Eastern Germanic is very striking: in both these groups primitive Germanic *gʷ* changes into *ggw*; thus Goth. *triggws*, O. Norse *tryggr*: O.H.G. *ga-triuui*. Similarly, primitive Germanic *ʒ* develops into *ggj* in Old Norse, but Gothic here leaves us in the lurch and shows *ddj* instead; thus Goth. *twaddjē*, O.N. *tweggja*: O.H.G. *zweiio*. On the other hand, on an equally important point, Nordic differs from Gothic and agrees with Western Germanic, for Gothic does not change I.-E. *ē* into *ā* like Nordic and Western Germanic.—Before dealing with the old Germanic languages as a whole from the view-point of Indo-European linguistics we shall have to describe the chief characteristics of the dialects of these three groups, and we shall begin with Eastern Germanic represented by Gothic alone.

I.-E. *e* and *i* appear as *i* in stressed syllable in Gothic, but as *e* (written *ai*) before *r*, *h* and *h*; cf. *aitan* (Skt. *ad-*), *sitan* (Skt. *sad-*), *wigan* (Skt. *vāh-*), *witan* (Skt. *vid-*), *widuwō* (Skt. *vidhāvā*), but *bairan* (Skt. *bhar-*), *saihan* (Skt. *sac-*), etc. Similarly, the alternance between *u* and *o* (written *au*) in the stressed syllable is not determined by the quality of the vowel of the following syllable as in Nordic and Western Germanic, but is due simply to the opening of *u* before *r* and *h*. This will be clear from these participial forms: *bairans*, *tauhan* but *numans*, *gutans*. In unstressed syllable however *i* and *u* may stand before *h* (cf. *ƿarihs*, and the enclitic particle *-uh*). I.-E. *e* becomes *a* before *r* in unstressed syllable (cf. *lukarn* from Lat. *lucerna*, *fadar* = O.H.G. *fater*). Gothic *ē* and *ō* are closed sounds approaching *ī* and *ū*. Hence the primitive Germanic open *ē*, which has become *ā* in Nordic and Western Germanic, has in Gothic coincided with the original closed *ē* to which corresponds *ē* (O.H.G. *ea*, *ia*) in Nordic and Western Germanic. Syncope of short vowels in unstressed syllables has taken place in Gothic in a peculiar fashion. As a rule, only final syllables have been affected by this rule of syncope which takes place not only in open syllable as in Western Germanic, but also before *s*, *z*. But the vowel *u* is not affected by it. Thus Nom. Sg. *sunus* but *dags* < \**dagaz* < \**dagoz*, *gasts* < \**gastiz*. Similarly Acc. Sg. *dag* < \**dagam*, *gast* < \**gasti(m)* but *sunu*. The common-Germanic shortening of the long final vowels *ī*, *ū*, *ō* took place in

Gothic *after* this syncope of short vowels, but in Nordic and Western Germanic it took place *before* it. In unstressed syllables Gothic shows an *a* where Nordic and Western Germanic show a high vowel; thus as the result of the common-Germanic shortening of final *ō*, we have, for instance, Goth. *giba* ("gift") but Ags. *ziefu*; Goth. *giba* ("I give") but O.H.G. *gibu*. Original short *ō* appears before *m* in Nordic and Western Germanic as *u*, but in Gothic as *a*; cf. Dat. Pl.: Goth. *dagam*, O.H.G. *tagum*, O. Norse *dǫgum* (*ǫ*=*aw* in English *saw*).

Final primitive Germanic *z* has become *s* in Gothic, but this secondary surd sibilant reverts to the original sonant when immediately followed by the enclitic particle *-u* or *-uh*; thus *ains* but *ainz-u*, *has* but *haz-uh*. In the same way, *b d* become *f þ* after final vowel (cf. Imp. *gif* from *giban*, *hláifs*—*hláibōs*, *biuda*—*báuh*, *staþs*—*stadiš*). Where *w* due to the disappearance of the following vowel came to be final or confronted to *s*, it formed a diphthong with the preceding short vowel; thus from *kniu* "knee" (< *\*knewa*) the genitive form *kniwis*, and from *fáus* "few" (< *\*fawaz*) the plural form *fawái*. After long vowels or diphthongs, however, and after consonants, the *w* remains unchanged\*, thus *sáiwis* "sea", *waúrstw* "work."

Through analogy, the effects of grammatical alternance have been largely obliterated in Gothic. It is the consonants of the present that have been generalised in most cases. Thus Goth. *teiha*, *táih*—*taihum*, *taihans*, but O.H.G. *zihu*, *zēh*—*zigum*, *gazigan*. The vowel-element *ai* of *every* reduplication-syllable is another peculiarity of Gothic. It is usually considered to be due to the analogical influence of forms like *haihait*, *vairēþ* in which the *ai* of the reduplication-syllable is phonologically regular (but see Streitberg, § 49). Preterital forms with the dental suffix but without the connecting vowel are quite rare in Gothic; thus O. Norse *sōtta*, O.H.G. *forahta* (< *\*sōhta*, *\*faiurhta*) but Goth. *sōkida* "I sought", *faiurhtida* "I feared."

In declension, the genitive plural ends mostly in *-e* in Gothic, but the corresponding forms in Nordic and Western Germanic point to *-ō*. The dative sing. masc. and neut. of pronouns and adjectives ended in *-ē* in Gothic as in *hammēh* < *hammē-uh* before the shortening of final vowel, but the *u* of the corresponding O.H.G. form *huēmu* is derived from an *-ō*. In dative sing. of *ā*-declension Goth. has *gibái*, but O.H.G. *gēbu* and O. Norse *gjǫf* < *\*gēbō*; in gen. and dat. sing. of *i*-declension Goth. *anstáis anstái*, but O.H.G. *ensti*; in dative sing. of *u*-declension Goth. *sundú* but O.H.G. *suniu*, O. Norse *syni*.—Vocalisation of consonantal declension has on the whole gone further in Gothic than in Old Norse or Old English; in some cases the vowel thus joined to consonantal stem was *u*, cf. *fōtus* "foot."

\* It is possible that in these cases *w* was a spirant.

Nordic literature is not so old as Gothic, but there are Runic inscriptions in Nordic which go back to 300 A.D. Nordic loan-words in Finnish and Lappish are also important for the history of the Nordic languages. Runic Nordic is in some respects more archaic than Gothic, for there the vowels of final syllables, which have disappeared in Gothic, are still preserved; thus *dagaR*, *gastiR*, *horna*=Goth. *dags*, *gasts*, *haur̥n*. But the chief characteristics of Nordic are still wanting in the language of the earliest runic inscriptions. The language developed its specifically Nordic character only after 700 A.D. when the Vikings began their meteoric career of conquest. But the seeds of dialectical differentiation were already there. Western Nordic comprehends the dialects of Norway, the Faroe-islands, and Iceland, and it was spoken also in England in the Middle Ages. Western Nordic literature goes back to the second half of the twelfth century, and it was in full bloom from the thirteenth to the fifteenth century. An idea of this noble literature can be formed from the novels of Sigrid Undset. The language of this Old Norwegian and Old Icelandic literature is called Old Norse, and it has had an uninterrupted and natural development in Iceland. Eastern Nordic on the other hand, from which have sprung up modern Swedish and Danish, is known to us from a pretty large number of runic inscriptions, but manuscript-texts in the language are not older than the thirteenth century.

Assimilation of various sound-combinations is one of the chief characteristics of Old Norse. Besides the *i*-umlaut it is moreover characterised by an *u*-umlaut which may be caused also by consonantal *v*. Through this *u*-umlaut *a* becomes *ø* (an open *o*) and *i* becomes *y* (i.e. *ü* in pronunciation); thus *søk* < \**saku*, *børn* < \**barnu*, *øtom*=O.H.G. *āzum*, *syngva*=Goth. *siggwan*. Another peculiar sound of Old Norse is *ø* (something like modern German *ö*) originated from *a* through *i*- and *u*-umlaut, cf. *søkkva*=Goth. *sagqjan*† "to sink."—Nasals are assimilated to the following surd occlusives, thus *drekkva* "to drink," *vetr* (< \**vettr*) "winter"; *lþ* > *ll* and *nþ* > *nn*: cf. *gull*=Goth. *gulþ*, *finna*=Goth. *finþan*. The *r* < *z* < *s* is assimilated to preceding *l*, *n*, *s*; cf. *heill*=Goth. *hails*, *steinn*=Goth. *stains*. The combination *ht* becomes *tt*, the vowel preceding it being lengthened, thus *mätta*=Goth. *mahta*. The final nasal, or the nasal which secondarily becomes final, is dropped, thus in infinitives (like *binda* etc.) and in acc. pl. (*daga*, *gesti*=Goth. *dagans*, *gastins*). Only monosyllabic words get compensatory lengthening when the final nasal is dropped in this way, thus *ī* from *in* and *ā* from *an*. Due to a very strong expiratory initial accent, not only final syllables, but also medial syllables have undergone

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† It should be noted that after the fashion of the Greeks the Goths too used to represent the guttural nasal by *g*.

contraction in Old Norse, and that in a much larger measure than in Gothic or Western Germanic. The formation of a medio-passive by joining the reflexive pronoun to verb-forms is another peculiar feature of Old Norse.

We now come to the most important group of Germanic languages—Western Germanic, which includes English, Friesian, Low Saxon, Low Frankish§—and the various dialects of Germany proper which are together called High German. The High German dialects are divided into three periods—old (750-1100 A.D.), middle (1100-1500 A.D.) and new (1500—). Anything like a full discussion of all these various Western Germanic dialects will not be possible here. We shall have to content ourselves only with pointing out the chief peculiarities of the principal Western Germanic dialects of the oldest period, so that by comparing various cognate Germanic forms we may be able to reconstruct the corresponding forms of primitive Germanic—which to connect with Sanskrit through the original Indo-European is our chief purpose here. For this purpose we shall at first discuss the chief distinguishing features of each of the principal Western Germanic dialects, and then the peculiar features of the Western Germanic dialects as a whole distinguishing them from Eastern and Northern Germanic.

Of the various Germanic tribes who left the parent soil and settled down in other countries only the forefathers of the English had retained and further developed their original language. But Old English was not a homogeneous dialect—for the simple reason that the Germans (the Angles, Saxons and Jutes) who came to England in the fifth century were from different parts of the Germanic area on the North Sea coast. The Jutes however could not have been connected with the Scandinavians later inhabiting the whole of Jutland, and neither the Saxons with the later important tribe of the same name in Lower Germany. The Saxons who invaded England were very probably the Saxones of the antique writers. The dialects of these three peoples, though differing from each other in details, were on the whole of a homogeneous character, and of the continental dialects Friesian stood nearest to them. The Anglo-Saxon dialects and Friesian have moreover in common a number of striking innovations. Thus Western Germanic *a* in closed syllable has as a rule become *æ* in them (Ags. *fæt*, O. Fries. *fet*); but before nasal this *a* assumed an intermediate quality, expressed sometimes by *o* and sometimes by *a* (*man—mon*). Similarly Western Germ. *ā*=prim. Germ. *ē* is rounded before nasal (cf. Ags. *mōna*, O. Fries. *mōna*=O.H.G. *māno* “moon”), but otherwise becomes *æ* and *ē* respectively in these two dialects (cf. Ags. *slæpan*, O. Fries. *slēpa*=O.H.G. *slāfan*). The *ā* from *añ* appears in them as *ō*, which may be further shortened

§ These are called Low German dialects.

into *ō* (cf. Ags.—O. Fries. *brōhte* = Goth.—O.H.G. *brāhta*). In unstressed syllables Western Germanic *o* becomes *a* (Ags.—O. Fries. *fana* : O.H.G. *fano* “banner”) and *a* becomes *e* (Ags.—O. Fries. *tunge* : O.H.G. *zunga* ; Ags. *ēazē*, O. Fries. *āzē* : O.H.G. *auga*).†

Apart from these innovations common with Friesian, Anglo-Saxon shows some other peculiarities which distinguish it from the other Western Germanic dialects including Friesian. Thus Germanic *ai* appears as *ā* (cf. Ags. *ān* : Goth. *ains*, O.H.G. *ein*) and Germanic *au* appears as *ēa* (cf. Ags. *ēazē* : Goth. *augō*, O.H.G. *auga*), and Germanic *eu* as *ēo* (cf. Ags. *lēof* : Goth. *liufs*, O.H.G. *leob*). A very prominent characteristic of Anglo-Saxon is the so-called “breaking” of simple vowels into diphthongs through the influence of following consonants (viz. *h* or *r*, *l*, *h*+consonant); thus Ags. *seah* (from *sēon*) : O. Sax. *sah* ; Ags. *heorte* : Goth. *hairtō*, O.H.G. *hērza* (*ē* is an open *e*) ; Ags. *meolcan* : O.H.G. *mēlkan* ; Ags. *cahta* : O.H.G. *ahto*. The *i*-umlaut took place at a very early date in Anglo-Saxon, and that even in those cases where the *i* was lost through the common Western Germanic vowel-drop.—After the Anglo-Saxons had settled down in England, practically exterminating the original Celtic inhabitants of the island who have left surprisingly few traces on the English language, England was subjected to fresh invasions by Germanic tribes,—the Scandinavians, who occupied chiefly the northern provinces. The influence of these Scandinavian invaders on the English language, though not inconsiderable, is however as nothing compared with that exercised by the Franco-Normans whose dialect was the court-language of England for several centuries. The result was that Anglo-Saxon became a peasants’ dialect. But it was a blessing in disguise, for the peasant guardians of the language unconsciously simplified it a great deal. This is at least one of the causes of the popularity of the English language at the present day.—It may be mentioned in passing that of modern Germanic languages Dutch too, like English, is one of those dialects of the Western Germanic group which have eluded the second Germanic sound-shift. The same is the case also with Old Saxon, the language of the *Heliand*, the fragments of a metrical version of Genesis (eighth century A.D.).

Leaving out the other minor dialects of Western Germanic, we shall now briefly discuss the main body of Western Germanic dialects—the dialects comprehended by the term Old High German,—by far the most important common characteristic of which is the so-called second Germanic sound-shift. Even the first Germanic sound-shift (see below) was not a single event occurring at a single point of time. The second Germanic sound-shift was even more of a pro-

† It should be noted that Anglo-Saxon (Ags.) means Old English, i.e. the Germanic languages of England up to 1100 A.D.

tracted process comprehending a series of individual linguistic events scattered over a long period and a wide area, so that it not only marks off High German from Low German, but also supplies criteria for linguistic grouping within High German.

The first event of this linguistic process took place about 600 A.D.: through it Germanic surd occlusives *after vowel* became hard spirants ( $p > ff$ ;  $k > ch$ ,  $hh$ ,  $h$ ;  $t$  became  $z$  pronounced not as a fricative as in Mod. German, but as the hard spirant  $ss$ ). Thus O.H.G. *trëffan*: O. Sax. *drëpan*; O.H.G. *gi-skaffan*: Goth. *skapans*: O. Sax. *gi-skapan*; O.H.G. *uualihēn*: Goth. *wakan*; O.H.G. *rēhan*: Goth. *wrikan*; O.H.G. *ëzzan*: Goth. *itan*. These hard spirants are very probably nothing but assimilated fricatives: thus  $p > pf > ff$ ,  $k > kch > ch$  and  $t > ts > ss$  ( $z$ ). Neither the first primitive Germanic sound-shift, nor the second High German one, did affect the combinations *sp*, *sk*, *st*, *ht*, *ft*. The second sound-shift moreover left untouched the combination *tr*; cf. O.H.G. *triuna*: Goth. *triggwa*, O.H.G. *trëtan*: Goth. *trudan*. The shift of *t* to *z* took place practically all over the Old High German region; cf. O.H.G. *zëhan*: Goth. *tailhan*, O.H.G. *ziohan*: Goth. *tiuhan*, O.H.G. *hërza*: Goth. *hairtō*. Yet this shift of *t* to *z* was eluded by Middle Frankish; thus M. Fr. *tuschen*=Mod. Germ. *zwischen*.—The shift of *p* to *pf* (usually written *ph* in O.H.G.) took place in a more restricted area; thus O.H.G. *phlëgan*: Ags. *plegan*, O.H.G. *scephan*: O. Sax. *sceppean* (Goth. *skapjan*). Also after liquids, primitive Germanic *p* at first changed to the corresponding fricative (*pf*) and then became a simple spirant; thus O.H.G. *hëlphan* (M.H.G. *hëlfsen*): Goth. *hilpan*, O.H.G. *uuerphan* (M.H.G. *wërfsen*): Goth. *wairpan*.—The sound which the primitive Germanic *k* developed into as the result of this second shift cannot be established with absolute certainty, for the transmitted written forms are all ambiguous and misleading. For the oldest period however this much can be said that the result of the shift of *k* was not the *ch* of mod. German, for it is expressed by *hh* (in final simply *h*). Later however this *hh* was replaced by *ch*.

Primitive Germanic spirants too, both surd and sonant, were affected by this second shift, though not in the same way as the occlusives. Prim. Germ. *f* was retained as a voiceless spirant in upper Germany and large parts of middle Germany. In lower Germany and the Rhine-region on the other hand it became voiced after sonants and thus coincided with the sound expressed in the literary language by *b*. The voiceless *f*=prim. Germ. *f* was at first distinguished from the later *f* < *p*: the latter was originally always geminated and was pronounced with greater intensity even when the gemination was simplified. It cannot be proved that there was any other difference between these two sounds expressed by *f*, though it is often held that the older *f* was always dento-labial as at present, whereas the later one at least for some time was a bilabial sound.

The intensity of the later spirant sometimes used to be expressed by double-writing (*ff*), and the mildness of the earlier one by the optional use of *v*. But the older *f* is never expressed by *v* in the combination *ft*.—Primitive Germ. *h* with its two values *h* and *χ* has not been affected by the second sound-shift. The original sound *χ* so far as it was preserved, coincided with the spirant originated from *k*, and was originally expressed by *hh* between vowels and by *h* in final position and in the combinations *ht* and *hs*. Primitive Germanic *ĥ* however was lost. At first it was softened into *đ*, which then further changed into *d*. This new *d* coincided with the Western Germanic *d* so far as the latter was not shifted to *t*.

It is difficult to describe in a few words how the primitive Germanic voiced spirants were affected by the second shift. The primitive Germanic voiced spirants have to some extent become occlusives in all the Germanic dialects, namely after nasal, in gemination, and in initial position. Only initial *ȝ* remained a spirant in Ags. and O. Sax. The dental voiced spirant too became occlusive everywhere. On the other hand, the shift of the labial and velar-palatal sonant spirants after vowel, *l* and *r* to the corresponding occlusives is a characteristic of High German alone. The voiced spirants thus reduced to soft occlusives, along with the original pure soft occlusives, then further changed to surd occlusives in large parts of the High German area.—But it is unnecessary for our present purpose to go further into the details of High German dialectology. We are now sufficiently equipped to reconstruct primitive Germanic forms on the basis of the cognate Indo-European languages on the one hand and the historical German dialects on the other.

By far the most important fact of primitive Germanic phonology is Grimm's Law of first Germanic sound-shift\* by which the occlusives derived from the primitive Indo-European were vitally affected. Like the second sound-shift the first too was to all appearance a tardy process extending over a pretty long time, but it was already over at the beginning of the Christian era—as also the action of Verner's Law—as the Graeco-Roman loan-words in Germanic clearly prove. The two Scythian loan-words in Germanic, Goth. *paida* : Scyth. *bailē* and Ags. *hænep* : Scyth. *kánnabis*, suggest moreover that the eastern and western Germans were still living together at the time of contact with the north-Iranian invaders; but the borrowing of these two words must have taken place *before* the first Germanic sound-shift which has left its unmistakable mark on them.

The process of Germanic consonant-mutation should have begun with the

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\* The law of second Germanic sound-shift affecting only the High German group of Western Germanic dialects, which has been already described above, was also discovered by Grimm. Usually the two laws are simply called Grimm's first Law and second Law respectively.



shift of I.-E. aspirated sonants to the corresponding soft spirants (*gh bh dh > g ʃ ḍ*), for the aspirated sonants were the least stable of the Indo-European sounds. These soft spirants however mostly appear as the corresponding occlusives in the historical dialects. Thus Goth. *guma* "man" < I.-E. \**ǵhāmen-* (connected with Skt. *kṣmā*); Goth. *agis* "fear" < I.-E. \**aǵhes-* (cf. Gr. *ákhos*); O.N. *midr* < \**midjaz*=I.-E. \**medh₂os* (Skt. *mādhya*); O.N. *mǫðr* < \**meðu*=I.-E. \**medhu* (Gr. *méthui*, Skt. *mādhu*); O.H.G. *nēbal* < I.-E. \**nebh₂olā* (cf. Skt. *nābhas*, Gr. *nephelē*, Lat. *nebula*); Goth. *baivan* (Skt. *bhar-*, Gr. *phērō*); Ags. *beofaþ*=Skt. *bibheti*.—Indo-European aspirated tenues (as also the pure tenues) were shifted to voiceless spirants. Thus O.H.G. *feim*: Skt. *phena*; O.H.G. *riha*: Skt. *rékha*; O.H.G. *huof* "hoof": Skt. *śaphā*; Goth. *hwaþō*: Skt. *kvath-*; Goth. *wiþōn*: Skt. *vyath-*.

Indo-European *k t p* were shifted to *x þ f* (the sound *x* is expressed in writing by *h*) in primitive Germanic. Thus Goth. *haurn*: Lat. *cornu* (Skt. *śṛṅga*); Goth. *hairtō*: Lat. *cord-* (Skt. *hṛd-*); Ags. *þynne*: Lat. *tenuis* (Skt. *tanu*); Goth. *þreis*: Skt. *trayaḥ*; Goth. *fōtus*: Skt. *pad-*; Goth. *faihu*: Skt. *pāśu*.—In the same way, Indo-European *g d b* were shifted to *k t p*. Thus Goth. *qinō*: Skt. *gnā*; Goth. *akrs*: Gr. *agrós* (Skt. *ājra*); Goth. *knūu*: Gr. *gónu* (Skt. *jānu*); Goth. *sitan*: Lat. *sedere* (Skt. *sad-*); Ags. *swēte*: Gr. *hēdus* (Skt. *svādū*). As the sound *b* was of rare occurrence in the original Indo-European, it is not surprising that we have very few examples with which to prove the shift of I.-E. *b* to *p* in primitive Germanic; yet see Goth. *þaúþ*: Lat. *tribus*. The first assumption regarding a Germanic form pointing to an I.-E. *b* is however that it is a loan-word. Thus, many of the numerous words in mod. German beginning with *pf* (e.g. *Pfeffer*, *Pfahl*, *Pferd*), which would normally point to an I.-E. *b* (*b > p > pf*), are loan-words from Latin (e.g. *pip̄er*, *palus*, *paraveredus*); but in many cases it is no longer possible to point out the source from which the Germans had borrowed, e.g. *Pfennig*, *Pflicht*, *Pflug*.

Grimm's first law of primitive Germanic sound-shift as stated above of course does not work so smoothly as the given examples would imply. In fact it has to be supplemented on the one hand by Grassmann's Law of the dissimilation of aspirates (LIS., p. 10) affecting all the Indo-European languages, and on the other by Verner's Law affecting specifically the Germanic dialects. Moreover, certain combinations (e.g. *kt*, *pt*, *tt* and *sk*, *st*, *sp*) defied Grimm's Law even without any instigation from Grassmann or Verner. The second element in *kt* and *pt* was not shifted at all; thus Goth. *ahtau*: Skt. *aṣṭáu*, Goth. *nahts*: Skt. *nakṭ-*, O.H.G. *nist(ila)*: Skt. *naptī*. I.-E. *tt* through *þt* became *ss* in the early Germanic dialects; thus Goth. *ga-wiss* < \**ga-wit-tos*. The combinations *sp*, *st* and *sk* remained quite unchanged in Germanic. Thus O.H.G. *spēhōn*: Lat. *con-spicio* (Skt. *spāś-*), O.H.G. *wuosti*: Lat. *vastus* "waste", Goth.

*fisks* : Lat. *piscis* "fish". I.-E. *skh sth sph* concided with I.-E. *sk st sp* in Germanic. Thus Goth. *skaidan* : Skt. *chid-* ( \* *śhīd-*), O.H.G. *stān* : Skt. *sthā-*, O.H.G. *spurnan* : Skt. *sphur-*.

These exceptions to the law of primitive Germanic sound-shift were noticed and explained by Grimm himself. But a large number of *apparent* exceptions to Grimm's Law were explained by Grassmann. Examples like Goth. *biudan* : Skt. *budh-*, Goth. *deigan* : Skt. *dih-* were clearly against Grimm's Law which would require the two Gothic forms to begin with *p* and *t* respectively. But from Grassmann's Law it followed as a necessary corollary that these seemingly irreconcilable examples are altogether irrelevant to the point in issue, for the original Indo-European forms of these roots were \**bhendh-* and \**dheiǵh-*. Thus it was proved that Goth. *biudan* was derived from \**bheudh-* as Goth. *deigan* from \**dheiǵh-*, and that everything was in order (see IJS., p. 10).

Verner's Law may be formulated as follows: The four surd spirants (*h* *þ* *f* *s*) existing in primitive Germanic after the primitive Germanic sound-shift were softened wherever the seat of the Indo-European accent was not on the immediately preceding syllable, the combinations *ht hs ft fs sk st* and *sp* however remaining quite unaffected. The significance of this law is quite obvious. On the one hand it affords a means to reconstruct Indo-European accent on the basis of Germanic alone, and on the other it explains the so-called *grammatical alternance* (grammatischer Wechsel) observed within congeneric Germanic forms. But most important of all, it explains almost all the exceptions to Grimm's Law. It is worth remembering in this connection that the battle-cry of "infallibility of phonetic laws" was raised only after Verner's brilliant discovery.

To illustrate Verner's Law, let us first consider some examples in which the primitive Germanic surd spirants have been retained after immediately preceding I.-E. accent. Cf. Goth. *faihu* : Skt. *pāśu* (I.-E. \**pékū*); Goth. *taihun* : Skt. *dāśa* (Gr. *dēka*); Goth. *brōþar* : Skt. *bhrātar*; Goth. *sunf* : Skt. *pāñca* (I.-E. \**pēṇkē-*); Goth. *wulfs* : Skt. *vīka* (I.-E. *ǵlkē-*). It will be clear from these and similar examples that every syllable ending with a surd spirant in a Germanic form corresponds to the stressed syllable of the corresponding Indo-European form. Thus the first syllable *hals-* of the Gothic form *halsa* ends with the surd spirant *s*; hence it can be safely assumed that in the corresponding Indo-European form \**kʷólso-* the first syllable was accented. And it also follows from Verner's Law that every syllable ending with a sonant spirant in a Germanic form must have been accentless in the corresponding form of the original Indo-European. Thus I.-E. \**patér* became \**faþér* in primitive Germanic, but through Verner's Law this \**faþér* further changed into \**fader* (from which is directly derived Goth. *fadar* etc.). The sonant spirants thus secondarily origi-

nated often however changed further into sonant occlusives (under circumstances to be discussed below), to the result that through Verner's Law simply a Germanic sonant occlusive may correspond to an Indo-European surd occlusive. Thus Goth. *hund* < \**hundō* < \**hunþō* : I.-E. \**ḱm̥tō* > Skt. *śatā* ; Goth. *hardus* < \**harþū-* : Gr. *kratús* ; Goth. *þridja* : Skt. *tṛtīya* ; O. Norse *ylgr* : Skt. *vṛkṭ* ; O.H.G. *swigar* : Skt. *śvaśrī* ( < I.-E. \**suek-* ) ; Ags. *snoru* < \**snozu* : Skt. *snuṣṭ*.—Indo-European voiceless aspirated occlusives too can in the same way appear as pure sonants in Germanic : I.-E. *th ph kh* > *þ f x* (Grimm's Law) > *d b g* (Verner's Law). Thus Old Norse *fold* : Skt. *pr̥thwī* ; O.H.G. *nagal* : Skt. *nakhā* ; M.H.G. *hübel* : Avest. *kaofa* "hill."

So far we have studied Verner's Law only as it modifies Germanic sounds *vis à vis* the Indo-European sound-system. But Verner's Law is responsible also for the *grammatical alternance*—a sort of consonantal ablaut—observed within congeneric Germanic forms. But it should be noted that this grammatical alternance has been largely obliterated through analogy in Gothic. It is, however, a prominent feature of the other Old Germanic dialects. Thus O.H.G. *ziohan* : *gi-zogan*, *dīhan* : *gi-digan*, Ags. *sēoþan* : *sudon*, *cēosan* : *curon* etc. This alternance between *h* and *g, þ* and *d, s* and *r* (< *z*) in congeneric Germanic forms can be fully explained in terms of Verner's Law as the result of Indo-European accent-shift revealed by analogous forms in Sanskrit. Thus the 3. pers. sing. of perfect from *vṛt-* is *va-vārt-a* in Sanskrit, and the corresponding form of 1. pers. pl. is *va-vṛt-mā* : it is due to this shift of accent that the *s* in Ags. *cēas* (3. pers. sing. perf.) changes (through *z*) to *r* in *curon* (1. pers. pl. perf.). But Anglo-Saxon is not alone among Germanic dialects in showing this consonantal alternance due to accent-shift in the original Indo-European. The corresponding forms of this verb in the other dialects are as follows :—O. Icelandic *kaus* ; *hþrom*, O. Friesian *kas* : *keron*, O. Saxon *kōs* : *kurun*, O.H.G. *kōs* : *kurum*. Though not in verbal conjugation (excepting a few unconvincing cases), this alternance may be observed also in Gothic ; cf. *fraþi* "understanding" : *frōdei* "intelligence," *taihun* "ten" : *tigjus* "decades", *ga-filh* "burial" : *fulgins* "concealed" etc.—In the original Indo-European, words sometimes changed their accent when in compound ; thus in Skt., simplex *catūr* but compound *cātuṣ-pad*. This accent-shift too can be traced in Germanic in the light of Verner's Law ; cf. Goth. *fidwōr* "four" but Ags. *fyþer-fēte* "four-footed."

Primitive Germanic voiced spirants, originated either through Verner's Law from primitive Germanic voiceless spirants or directly derived from Indo-European sonant aspirates, changed to a large extent into pure sonants *already in primitive Germanic*. Initially and after homorganic nasals *þ* and *ð* are attested only as occlusives. Thus prim. Germ. \**þendan* ( < I.-E. \**bhendh-* : Skt. *bandh-* ) is purely a postulate of the theory of Germanic sound-shift without

any factual basis in the Germanic languages. For the same reason prim. Germ. \**ḍum̃baz* (> Goth. *dumbs*) is merely a grammatical construction. The sound *ḍ* seems to have become an occlusive already in primitive Germanic also after *l* and *z*, for nowhere do we find any sure trace of *lḍ zḍ*; only of *ld zd*. Thus Goth. *kalds*: O. Norse *kaldr*: Ags. *ceald*; Goth. *huzd*: O. Norse *hoddr*: Ags. *hord*. Primitive Germanic *rḍ* however is retained in Nordic (cf. *gard bord*) though not in eastern (cf. Goth. *gards baird*) or western (cf. Ags. *geard bord*) Germanic.

In connection with Grimm's and Verner's Laws we have already discussed the essential features of the history of Indo-European occlusives in Germanic. But the three series of Indo-European gutturals require special consideration, for their development within Germanic is extremely complicated on account of the various sound-shifts discussed above.

I.-E. *ḱ* became *χ* in initial position in primitive Germanic; in medial and final position too it became *χ* if the I.-E. accent immediately preceded it; it became *g* in medial and final position if the I.-E. accent was not on the immediately preceding syllable; after *s* it everywhere became *k*. Moreover we have to remember that the sound *χ* is usually indicated by the sign *h*. Thus I.-E. \**ḱmtó-m*: prim. Germ. \**χunda-n*: Goth. *hunda*; I.-E. \**péḱu* (Skt. *páśu*): prim. Germ. \**jeχu*: Goth. *faihu*; from I.-E. \**iḱ-* (cf. Skt. *īśe*) is derived Goth. *aigun* in 3. pers. plur. The basic form here should have been \**iḱ.ṇt* (with accent on *ṇ*). Goth. *skeinan* "to shine" seems to be derived from I.-E. \**sḱī-*.—There is no sure trace of I.-E. *ḱh* in Germanic.—I.-E. *ǵ* became *k* in prim. Germ. and remained so in Goth. Thus I.-E. \**ǵeus*: Skt. *jóṣati*: Goth. *kiusan*; I.-E. \**aǵrós*: Skt. *ājyah*, prim. Germ. \**akraz*, Goth. *akrs*.—I.-E. *ǵh* became *g* in prim. Germanic (*g* after *n*) and *g* in Gothic; thus I.-E. \**ǵhəmon*: prim. Germ. \**guman*: Goth. *guma*.

Indo-European pure velars have coincided with the palatals in Germanic. The labio-velars however can be distinguished by the element *w* in their Germanic descendants, but this element too is often wanting, specially before *u* and *o*. Primitive Germanic representative of I.-E. *kʷ* should have been *χw* which however might change into *gw* according to Verner's Law. Thus I.-E. \**leikʷe-ti* (Gr. *leipō*, Skt. *rinākti*) > prim. Germ. \**liχwid[i]* > Goth. *leihiþ*; I.-E. \**régʷes*- (Skt. *rājas*) > prim. Germ. \**rekwez*- > Goth. *riqis*; I.-E. \**sokʷ-rós* (from \**sekʷ*: Skt. *sac-*) > prim. Germ. \**sagwłaz* > O. Icel. *segg* "socius." Through the influence of a preceding labial consonant, *kʷ*, through *χw*, in some cases became *f* already in primitive Germanic; according to Verner's Law, this *f* might also appear as *þ*. Thus I.-E. \**ǵlʰkʷo-s* > prim. Germ. \**ǵlʰfa-z* > Goth. *wulfs*; I.-E. \**pénkʷe* > prim. Germ. \**fimf* (the same form in Goth. and O.H.G.); I.-E. \**ǵlʰkʷt* > prim. Germ. \**ǵulgwt* > \**ǵulþt*:

O.H.G. *wulpa* (with a different suffix). As for I.-E. *g<sup>w</sup>*, which became *kw* in primitive Germanic (simply *k* before *u* and *o*), let us consider I.-E. \**g<sup>w</sup>i<sup>u</sup>os* > prim. Germ. \**k<sub>2</sub>i<sub>2</sub>ya-z* > Goth. *qius* : Skt. *jīvdh*. I.-E. \**g<sup>w</sup>h* should have become *gw* in primitive Germanic. We do find traces of this *gw*, but usually either as *g* or *w* (not both). Before guttural vowels (even of secondary origin) the element *w* is invariably lost. Thus from I.-E. \**g<sup>w</sup>h<sub>2</sub>h<sub>2</sub>*- we have O. Icel. *gunnr* (*un* < *ŋ*); but I.-E. \**g<sup>w</sup>hormos* (Skt. *gharmāh*) > prim. Germ. \**qarmaz* > O.H.G. *warm* (Goth. *warmjan*).—It will be clear from this that it is never easy and often impossible to identify a Germanic guttural from the stand-point of Indo-European sound-system. But it is necessary to remember that Goth. *q*, the origin of which has not yet been fully explained, as a rule points to Indo-European sonant labio-velar (see Braune, *Gotische Grammatik*, 10th ed., § 59).

Of Indo-European consonants only the nasals, liquids and the semivowels had on the whole a peaceful existence in Germanic. Yet final *m* changed into *n*, cf. Goth. *fan-a* : Skt. *tām* : and *n* disappeared in primitive Germanic before *x* (= *h*), (extending the preceding vowel in compensation), as may be observed also in mod. German *bringen* : *brachte*. The semivowels too were on the whole retained unchanged in primitive Germanic; cf. Goth. *juh* : Skt. *yugām*, Goth. *frija* : Skt. *priyā*, Goth. *widuwō* : Skt. *vidhāvā*, O. Norse *tívar* : Skt. *devāh* etc. The liquids *r* and *l* were not changed at all; cf. Lat. *cornu* : Goth. *hairn*, Lat. *granum* : Goth. *kairn*, Gr. *polú* : Goth. *filu*, Lat. *alius*, Goth. *aljīs*.

We shall now briefly review the history of Indo-European vowels—mainly of stressed Germanic syllables—in primitive Germanic. I.-E. *i* = prim. Germ. *i* = Goth. *i*; thus Goth. *witum* : Skt. *vidmā*. Before *h*, *h<sub>2</sub>* and *r* however this *i* is “broken” into *e* (written *ai* according to the modern transcription of Gothic); thus I.-E. \**q<sub>2</sub>iros* (Skt. *vīrāh*) : prim. Germ. \**q<sub>2</sub>iraz* : Goth. *waír* : I.-E. \**dīk<sub>2</sub>* (Skt. *diśāti*) : prim. Germ. \**tih<sub>2</sub>* : Goth. *ga-taihun* “they proclaimed.” This “breaking” does not affect vowels of unstressed syllables as was already mentioned above. —I.-E. *ī* = prim. Germ. *ī* = Goth. *ī* (written *ei*); thus Goth. *deisei* (in *filu-deisci*) : Skt. *dhītīh*. I.-E. *u* = prim. Germ. *u* = Goth. *u* (broken into *au*, i.e. open *o*, before *h*, *h<sub>2</sub>*, *r*). Thus I.-E. \**q<sub>2</sub>ugóm* (Skt. *yugām*) : prim. Germ. \**ukan* : Goth. *juh* ; I.-E. \**dhug<sub>2</sub>h<sub>2</sub>tēr* (Skt. *duhitā*) : prim. Germ. \**duhter* : Goth. *dauhtar*. The *u* remains unbroken not only before unstressed *h* (as in the enclitic particle *-uh*) but also before *r* < *z* < *s*; hence Goth. *ur*. —I.-E. *ū* = prim. Germ. *ū* = Goth. *ū*; cf. Goth. *jūs* “you” : Skt. *yūyām* (instead of \**yūram* < \**yūzam* ; LIS., p. 138).

I.-E. *e* (= Goth. *i*) normally remained unchanged in prim. Germanic (this secondary *i* too is broken into *ai* in Gothic before *h*, *h<sub>2</sub>*, *r*). Cf. I.-E. \**g<sup>w</sup>enā* (Skt. *gnā*) : prim. Germ. \**k<sub>2</sub>enōn* : Goth. *qinō* : O.H.G. *quena* etc.; I.-E. \**pél<sub>2</sub>u* (Skt. *pásu*) : prim. Germ. \**filu*, Goth. *faihu* ; I.-E. \**medh<sub>2</sub>os* : prim. Germ.

\**midūz* : Goth. *midjis*, O.H.G. *mitti*, Ags. *midd* etc. Already in primitive Germanic *e* changed into *i* before a covered nasal or through the attraction of an *i* in the following syllable : thus I.-E. \**bhendh-* (Skt. *bandh-*) : Goth. *bindan* etc.; I.-E. \**sentī* (enclitic verb-form of the principal clause) : prim. Germ. \**sindī* : Goth. *sind* ; I.-E. \**ésti* (Skt. *dsti*) : prim. Germ. \**isti* : Goth. *ist*.—The history of I.-E. *ē* in Germanic is very peculiar. In primitive Germanic it became a very open sound (  $\bar{e}$  ), but in Gothic it became very closed (  $\bar{e}$  ) through a process of retrogression ; in Western and Northern Germanic however  $\bar{e}$  through a reverse process became  $\bar{a}$  ; in Anglo-Frisian this  $\bar{a}$  was again narrowed into  $\bar{æ}$   $\bar{e}$ . Thus from I.-E. \**sē-* “to sow” we have Goth. *mana-sēþs* “mankind”, O. Icel. *sāþ*, Ags. *sæd*, O. Fr. *sēd*, O.H.G. *sāt* ; I.-E. \**dhē-* : prim. Germ. \**dēdiz* “deed” : Goth. *ga-dēds*, Ags. *dæd*, O. Fr. *dēd*, O. Sax. *dād*, O.H.G. *tāt*. But beside this open  $\bar{e}$  ( < I.-E.  $\bar{e}$  ) there was in primitive Germanic a closed  $\bar{e}$  derived from I.-E.  $\bar{e}i$  (the long diphthong). Usually the Germ.  $\bar{e}$  < I.-E.  $\bar{e}$  is called  $\bar{e}^1$ , and the Germ.  $\bar{e}$  < I.-E.  $\bar{e}i$  is called  $\bar{e}^2$ . This  $\bar{e}^2$  was preserved as  $\bar{e}$  not only in Gothic but also in O. Icelandic, Ags., O. Sax., as well as in O.H.G. of the oldest period. Later however  $\bar{e}^2$  in O.H.G. became *ea* > *ia* > *ie* which was a diphthong still in M.H.G., but in modern German it has become a long monophthong. Thus from an I.-E. demonstrative stem \**keḡ-* we have *hēr* in Goth., O. Sax., O. Icel. and Ags., but in O.H.G. *hēr*, *hear*, *hiar*, *hier* “here”. This  $\bar{e}^2$  is in evidence also in Goth. *fēra* “side” : O.H.G. *fēra*, *fēara*, *fiara*, and in loan-words such as Goth. *mēs* (from vulgar Lat. *mēsa* < *mēnsa*), O.H.G. *meas*, *mias* “table.”

I.-E. *o* > prim. Germ. *a* = Goth. *a*, but usually *æ* in Ags. Thus I.-E. \**ke<sup>o</sup>od-* : Goth. *þa*, O. Icel. *huat*, Ags. *hwæt*, O. Sax. *hwat*, O.H.G. *hwaz* ; I.-E. \**bhērōnti* (Skt. *bhāvantī*) : prim. Germ. \**berand(i)* : Goth. *bairand* : O.H.G. *berant*.—I.-E.  $\bar{o}$  remained practically unchanged in Germanic excepting in O.H.G. where it became *oa*, *ua*, *uo*. Thus I.-E. \**dhōmos* (Skt. *dhāman*) : prim. Germ. \**dōmaz*, Goth. *dōms*, O. Icel. *dōmr*, Ags. *dōm*, O.H.G. *tuom* etc.—I.-E. *a* remained unchanged in primitive Germanic. Thus I.-E. \**ágros* (Skt. *ajráh*) : prim. Germ. \**akraz* : Goth. *akrs*, O.H.G. *acchar* etc.—I.-E.  $\bar{a}$  however became  $\bar{o}$  in prim. Germanic, which later changed into *oa* *ua* *uo* in O.H.G.; thus I.-E. \**bhrātēr* : prim. Germ. \**brēþēr*, Goth. *brōþar*, O.H.G. *bruoder*.—I.-E.  $\bar{a}$  coincided with I.-E. *a* in all the I.-E. dialects excepting Indo-Iranian. Hence I.-E. \**pētēr* (Skt. *pītā*) : prim. Germ. \**fadēr*, Goth. *fadar*, O. Sax. *fader*, O.H.G. *fater* etc.

Of Indo-European short diphthongs, *ei* became  $\bar{i}$  in primitive Germanic. Thus I.-E. \**steighō* (Skt. *stighnoti*) : prim. Germ. \**stīgō* : Goth. *steiga* ; I.-E. \**bheid-* (Skt. *bhid-*) : prim. Germ. \**bīt-* : Goth. *beitan*, O.H.G. *bīzan* “to bite.”—I.-E. *oi* became *ai* in prim. Germ. (but  $\bar{a}$  in Ags. and *ei* in O.H.G.). Thus I.-E. \**oīnos* “one” : prim. Germ. \**ainaz*, Goth. *ains*, Ags. *ān*, O.H.G. *ein* ; I.-E. \**uōida* (Skt. *véda*) : prim. Germ. \**uail(a)* : Goth. *wail*, Ags. *wāt*, O.H.G. *weiz*.—

I.-E. *eu* remained unchanged in prim. Germanic, but became *iu* in Goth., *eo* in Ags., *eo iu* etc. in O.H.G. Thus from I.-E. \**leuk<sup>w</sup>*. (Skt. *ruc-*) we have prim. Germ. \**leuX-*: Goth. *liuha*, Ags. *l̥oht*, O.H.G. *leoht* "light".—I.-E. *au* and *ou* coincided in *au* in prim. Germanic and remained so in Goth. but changed to *ēa* in Ags. and *ō*, *ou* in O.H.G. Thus I.-E. \**roudhos* (Skt. *rudh-i-rā*): prim. Germ. \**raudaz*, Goth. *rauþs*, Ags. *rēad*, O.H.G. *rōt*; I.-E. \**aug<sup>w</sup>*. (Skt. *ójah*): Goth. *aukan*, Ags. *ēacian*, O.H.G. *ouhhōn*.

Of I.-E. long diphthongs the most important thing to remember is that I.-E. *ēi* has become *ē<sup>2</sup>* in Germanic. In other cases the long diphthongs cannot well be separated from the corresponding short ones in Germanic.

But Germanic vocalism cannot be understood without an idea of the effects of the initial expiratory accent of primitive Germanic which entailed the contraction of middle syllables and the loss of final ones. To pursue these phenomena specifically in the individual dialects will however take us too far. Our chief concern here is to try to ascertain how Indo-European forms were affected by Germanic accent.

That in primitive Germanic the Indo-European forms still retained their full endings is proved most clearly by the early Germanic loan-words in Finnish—such as *kuningas* "king," *rengas* "ring," *tiuris* "dear" etc. But the evidence of the Germanic languages themselves is hardly less conclusive in this respect. The oldest runic inscriptions too show Germanic forms with equally full endings; cf. *dagaR*, *holtingaR* etc. The endings have been syn-copated in historical Germanic forms of two or more syllables; but in monosyllabic words the endings have been largely retained. Thus in monosyllabic Gothic pronominal forms such as *sō* *hō* we have the Indo-European feminine ending *-ā* preserved in a Germanic garb. But polysyllabic words tell a different story; thus Goth. *gibā* from prim. Germ. \**gibō*, Goth. *waúrdā* from prim. Germ. \**wordō*. Yet the length of the final syllables also of polysyllabic words is retained in Gothic before enclitic particles; cf. *heilā* but *heilō-hun*, *hammā* but *hammē-h*.—Germanic proper names recorded by Roman authors clearly show that the contraction of final syllables in polysyllabic Germanic forms should have begun not before the third century A.D.; cf. *Nerthus*, *Albis*, *Segimundus* etc. But the process must have been over by the middle of the fourth Century, for in Gothic there is no trace of these final syllables.

Chronologically the earliest change affecting final syllables is the change of final *m* to *n*—which has been mentioned above. But every final *n*—including *n* < *m*—then disappeared after nasalising the preceding vowel; thus prim. Germ. \**hornan* > \**hornā*, prim. Germ. \**gebōn* > \**gebō* etc. That at the earliest stage these final vowels had actually a nasal timbre can be inferred

from the fact that in the runic inscriptions the final vowels which were never followed by a nasal are lost, though the vowels which were originally followed by a nasal are retained. But the nasal timbre of these final vowels was already lost at the time of earliest Finnish borrowings from Germanic, for neuter nouns which originally had a nasal ending show no trace of the nasal in the Finnish forms. Thus Finn. *gulta* "gold," *viina* "wine" (Goth. *gulþ*, *wein*).—Final dentals too must have been dropped very early in this process, for the long vowels preceding the dropped dental are shortened in the same way as final long vowels. Thus Goth. *wili* < \**welīt* : Lat. *velīt*; Goth. *baīrun* < I.-E. \**bherŋt*; Goth. *iddja* < prim. Germ. \**iŋēd* : Skt. *dyāt*; O.H.G. *nēvo* : Skt. *nāpāt*. Non-nasal final *ā ē ō* disappeared altogether: thus Goth. *wāt* < I.-E. \**uōida* (Skt. *vēda*); Goth. *fimf* < I.-E. \**pe.nkʷe* (Skt. *pāñca*); Goth. *his* < prim. Germ. \**heso* < I.-E. \**te-so* "his."—Germanic morphology has been profoundly influenced by another law about the shortening of final syllables: already in pre-runic period the final *i* of trisyllabic words was dropped. Cf. Goth. *baīrand* : Skt. *bhārantī*, run. *ubar* : Skt. *upāri*. On account of this law, the primitive Germanic forms corresponding to Skt. *bibhemi bibheṣi bibheti* must have been \**biṭhaim* \**biṭhaiz* \**biṭhaid*.—The closed long vowels *ī ū ō*, whether covered or not, were shortened in final syllables. Gothic feminine forms like *mawi* *fiwi* prove the case for *-ī*, as also Goth. *wili* : Lat. *velīt*. Shortening of final *-ū* in primitive Germanic has to be assumed in order to reconcile O.H.G. *swīgar* (< \**swigrū*) with Skt. *śvaśrū*. And only by assuming a similar shortening of *-ō* of final syllable in prim. Germanic can we reconcile Goth. *baīra* with Western Germ. *beru* (both from \**berō* < \**berō* < \**bherō*).

We shall now mention just a few primary and secondary suffixes proving the I.-E. origin and also the specific Germanic character of the languages concerned. Of the participial suffixes, *-ŋos* of active perfect (see LIS., p. 99) has been practically given up in Germanic, but cf. Goth. *weit-wōd-* (:Skt. *vid-vās*) and *bērusjōs* "those who have borne, parents" from \**bher-*. The corresponding present suffix *-nt* appears in the expected form *-nd* in Germanic, cf. Goth. *frijōnds* (participle of the denominative from I.-E. \**priŋo* : Skt. *priyā*), *fijands* "foe" (from I.-E. \**pēi-*); its feminine form (I.-E. *-ntī*) too is clearly perceptible in Goth. *gibandei* etc.—Both the I.-E. suffixes *-to* and *-no* of perfect participle (see LIS., pp. 100-101) are fully in evidence in Germanic. As in all other I.-E. dialects, so in Germanic too, secondarily derived verbs can take only *-to* and never *-no*. Specifically for Germanic, however, should be noted that the weak verbs which in preterite have the dental suffix *-ta* instead of *-da* (see below), form also their past participles with *-t-*; thus Goth. *bugjan* "to buy": pret. *baūhta* : past part. *baūhts*; Goth. *waīrkjan* "to work": pret. *waīrhta* : past part. *waūrhts* (Streitberg, § 228). The same striking agreement between the parti-



ciple and the preterite may be observed also in the case of preterital presents ; thus Goth. *kunnan* "to know": pret. *kunþa* : past part. *kunþs* ; Goth. *þaúrban* "to need": pret. *þaúrfta* : past part. *þaúrfts*. In most cases however Germanic participles with this dental suffix are nominal in meaning as frequently also in Skt. (LIS., p. 101); thus O.H.G. *lūt* : Skt. *śrutá*, Goth. *raih̥ts* : Lat. *rectus* etc. In spite of this multifarious activity the suffix *-to* in Germanic has lost much ground to its great rival *-no*. The chief class of strong verbs knows nothing of *to*-participles. The participial suffix *-no* in fact dominates the strong conjugation in Germanic as *-to* the weak. The suffix *-en* in mod. Germ. *ge-sehen*, *ge-kommen* etc. is in the last analysis nothing but the suffix *-na* in Skt. *ṭhānā* etc., initially re-inforced by an *a-* (*-ana*); English *bitten* is thus nothing but our Skt. *bhinnā*. It may be mentioned in passing that the unstressed *ga-* (mod. Germ. *ge-*) prefixed to passive participles of simple verbs was a feature of Western Germanic only, but in no dialect was it considered absolutely necessary. The infinitive suffix *-en* (Goth. *-an*) of mod. German is considered to be derived from pre-Germanic *-onom* ( > prim. Germ. *-anan*), the accusative form of the Indo-European suffix *-ono* = Skt. *-ana* in *ádana*, *bāndhana* (Goth. *itan*, *bindan*). This explanation of the Germanic infinitive was favoured by Kluge (Urgermanisch, grdl ed., § 188).

As for purely nominal suffixes it has to be noted first of all that they are mostly specifically Germanic, of hardly any significance for Sanskrit or the original Indo-European. This is because the suffixal parts were mostly lost in Germanic on account of its initial stress-accent, so that the Germans had to improvise new suffixes wherever necessary. Monosyllabic suffixes are as a rule less productive than the polysyllabic ones in Germanic. Thus the suffix *-nī* (in Skt. *pātnī*, *rājñī*) is less productive in Germanic than its side-form *-enī* (cf. Goth. *Saivini* etc.). Of Indo-European dental suffixes, *-ti* is well represented in Germanic (cf. the Gothic verbal abstracta *ga-baúrþs*, *ga-qumþs* etc.); but much more productive is Germ. *-iþa* < I.-E. *-etā*, the suffix of adjective abstracta corresponding to Skt. *-tā* (or *-atā* when the stem is thematic); cf. Goth. *hauhiþa*, *hlūtriþa* etc.—Of comparative suffixes (see LIS., pp. 103–106), *-ro* is clearly in evidence in Goth. *anþar* (Skt. *ántara*), and its superlative counterpart *-mo* in Goth. *fruma* (indirectly connected with Lat. *primus* < \**prismos*). The suffixes *-tero* and *-tomo* have left but faint traces in Germanic, but cf. Ags. *furdur* and *furdum*. The intensive suffix *-ison* (LIS., p. 105) is clearly in evidence in Germanic; cf. Goth. *miniza* from prim. Germ. \**mi-nw-ison-*, Goth. *sutizins* < \**swaā-ison-*. Similarly *-isto*; cf. Goth. *hardus* *hardiza* *hardista*, O.H.G. *jung* *jungiro* *jungisto* (corresponding to Skt. *yúvan*, *yávīyas* *yáviṣṭha*).

Indo-European case-system has been very much simplified in Germanic. In substantive-declension the first thing to note is the disappearance of the

dual number, which however continued for sometime longer to be a living factor with pronouns and verbs. Traces of dual number in substantive-declension is to be found in forms like Ags. *nosu*, *duru* etc.

The Indo-European ending *-s* in nom. sg. is clearly in evidence in the early Germanic loan-words in Finnish such as *kuningas*, *rengas* etc. Cf. also Goth. *dags gasts sunus*=O. Norse *dagr gestr sunr*. In Western Germanic however this ending was lost phonologically; hence O.H.G. *tag gast sunu*. But in monosyllabic pronominal forms the ending *-s* (>*-r*) is retained also in Old High German, cf. *wēr* etc. The Indo-European nominative ending *-(o)m* of neuter *o*-stems has disappeared in Germanic, but not without leaving a trace behind as explained above; thus run. *horna*: early Germ. *horn* (Skt. *śṛṅga-m*). Neuter *i*- and *u*-stems form their nominatives without *s* not only in Sanskrit, but also in Germanic, cf. prim. Germ. *marī* (in Goth. *marī-saiues*), Goth. *faihu*: Lat. *pecu* (Skt. *páśu*).

The accusative ending *-m* was present in Germanic with the same restrictions as in Sanskrit; but in historical forms it has changed into *-n* or disappeared altogether. This *-m* of accusative in the form of *-n* is found in Goth. *þan-a* (Skt. *tām*). Similarly runic *staina* < \**stainan* < \**stainam*; Goth. *tunþu* < \**tunþum* < I.-E. \**dónt-m*; Ags. *duru* < \**dhur-m*, etc. It is important to note that dissyllabic consonantal stems did not change the ending *-m* to *-um* (as above). Thus I.-E. \**bhráter-m* > prim. Germ. \**brōþer-n* > Goth. *brōþar* (same as in nominative).† Gothic accusative forms like *fadar*, *mēnōþ*, *weitwōd* have evidently lost a final *m* and not *n* (which would have developed into *um*). Some monosyllabic consonant-stems too, on the other hand, seem to have taken the ending *-m* instead of *-n*; cf. Goth. *baúrg*, *naht*, in accusative. I.-E. *o*-stems had an instrumental in *-ō*; cf. Skt. *ṛṣṭā*, Gr. *pó-pote*. This instrumental ending is in evidence in O.H.G. *tagu wortu* < \**dagō* \**wortō*. I.-E. *ā*-stems (=Germ. *ō*-stems) had moreover an endingless form in instr. sing., cf. Skt. *doṣā*. For this too we have corresponding forms in Germanic; cf. O.H.G. *gēbu* < \**gēbō*; O.N. *ffadr* < \**fedru* < *fēbō*.—Germanic dative is nothing but the Indo-European locative in *-i*. But this *i* has phonologically disappeared in the second syllable, though after modifying the root-vowel in Nordic and Anglo-Saxon. Thus prim. Germ. \**jadri* (Gr. *patri*): Goth. *fadr*: O.N. *fedr*; prim. Germ. \**manī*: Goth. *mann*: Ags. *men*. In trisyllabic forms however the ending was dropped so early that the root-vowel was not modified in their case in these two dialects. In the case of I.-E. *e/o*-stems the prim. Germanic locative ending should have been as in \**dag-e-i* (> \**dag-i* > Ags. *dagi*) or \**dag-o-i* (> \**dagai* > O.H.G. *tage*). The dative ending *-ai* of Indo-European femi-

† A different view is expressed by Kieckers, *Handbuch der vergleichenden gotischen Grammatik*, pp. 119, 126.

nine *ā*-stems is clearly in evidence in Gothic *gibai*: Ags. *ȝife*. Indo-European ablative ending *-ēd* (cf. Skt. *paścāt*), which through *-ēt* became *-ē* in primitive Germanic, can still be traced in Gothic pronominal forms such as *þē*, *hē*, *hammē-h*.

In genitive singular the Germanic languages show various endings, but never *-sya*. We find here primarily an *-s* out of *-so* (cf. O. Ch. Sl. *če-so*), which originally should have been a pronominal ending; thus Goth. *dagis* (< \**dagasa*): O.N. *dags*; O.H.G. *tages*. Beside it the I.-E. genitive ending *es/os* too can be clearly perceived in Germanic; cf. O.H.G. *naht-es*, *mann-es*. All *n*-stems of primitive Germanic formed their genitive with *-iz* (< I.-E. \**-es*), of which the element *i* was dropped very early in trisyllabic forms; thus prim. Germ. \**hananiz* > \**hananz* > Goth. *hanins*: O.H.G. *henin*. In gen. sg. the *r*-stems were perhaps endingless in Germanic as in Sanskrit (cf. Skt. *bhrātūr* from *bhrātúr*); thus O.N. *brōþur*, Ags. *brōþur* (but Goth. *brōʀs*).

In nominative plural the I.-E. ending *-es*=Germ. *-iz* is clearly in evidence in runic *dohtriR*; prim. Germ. \**fōtiz* (Gr. *pódes*) can still be recognised through Ags. *fēt* of which the root-vowel has been modified to *ē* by the *i* of the original ending. But this *i*-umlaut cannot be perceived in Western Germanic in the case of disyllabic consonant-stems, for there the vowel of the third syllable was dropped very early; thus early Germ. \**mēnōþ-iz*: Ags. *mōnad*. The I.-E. ending *-us* (> *-uz* in prim. Germ.) in accusative plural after vowel-stems can be clearly perceived in Goth. *dagans gastins sununs*; after consonants however this ending phonologically developed into *-uns*, cf. Goth. *brōþr-uns wintr-uns*. In Northern and Western Germanic the acc. pl. has mostly coincided with the nom. pl.—The original Germanic ending in dat. pl. was *-miz* (see LIS., pp. 16–17), and it is retained by at least one Gothic form, viz. *twaimiz* (=Skt. *dvā-bhyām*). But as most of the forms in dat. pl. were of three syllables or more, the ending *-miz* was early contracted into *-mz* (≠ *-m*); hence Goth. *dagam sunum* etc. in dat. pl.—The original Germanic ending in gen. pl. was *-ēm* (an ablaut-form of *-ōm*, see LIS., p. 40) which phonologically lost its nasal element in early Germanic. Hence the Gothic ending *-ē* in *dagē*, *brōþrē*.

Germanic pronominal flexion has retained all the specifically Indo-European features, and it is a striking innovation of Germanic that adjectives here took largely after the pronouns in declension. In dat. sg. masc. neut. we have in Gothic the pronominal ending *-mma* (cf. *þamma imma*) which is a reduced form of older \**zmē*, the final long vowel of which is still preserved in forms whose finals are protected by enclitic particles (cf. *þammē-hun* etc.). This \**zmē* (assimilated into *-mmē*) is the direct descendant of the I.-E. pronominal ending *-smēd* (> Skt. *-smāt*). On the evidence of Ags. *þære* and O.N. *þeire*,

the corresponding feminine form in primitive Germanic should have been \**þaizai* which is in full agreement with Skt. *tasyāi*. Similarly O.N. *þeivar* presupposes a genitive form \**þaizjoz* which fully corresponds to Skt. *tasyāḥ*. The corresponding Gothic forms *þizai þizōs*, though clearly reminiscent of these forms, are difficult to reconcile with them without the assumption of an otherwise unwarranted sound-mutation *zj > z*.—The Indo-European neuter pronominal ending *-d* (Skt. *tā-d* etc.) has been preserved in Goth. *þat-a, it-a*, protected by the enclitic particle. A guttural pronominal enclitic of Indo-European origin (cf. Skt. *tvān ha*, Gr. *emē ge*) is to be found in Goth. *mi-k* to which corresponds mod. Germ. *mich*.

This essentially Indo-European pronominal declension profoundly influenced the declension of adjectives in Germanic—which is the reason why adjectivess often take weak flexion in modern German (e.g. “des guten Mannes”). From the Gothic adjective stem *blind-* “blind” we have in dat. sg. masc. *blindamma* after *þamma*, and in acc. sg. masc. *blindana* after *þana*; in dat. pl. masc. *blindaim* after *þaim*; gen. sg. fem. *blindaiṣōs* after *þizōs*; neut. *blindata* after *þata*, etc. The process of assimilating the declension of adjectives to that of pronouns was carried on still further in Old High German.

We have now to discuss the history of the Indo-European verbal system at it developed within Germanic. Compared with Sanskrit or Greek, the Germanic verbal system makes a very poor show indeed, for the early Germans had mercifully simplified the extremely complex Indo-European verbal system. Yet with regard to *Aktionsart* (see LIS., p. 137). Germanic gives us valuable information about the Indo-European verbal system, though only two verbal *aspects* can be clearly distinguished here, viz., the perfective aspect (attaching to verbs of the type “to find”) and the imperfective aspect (attaching to verbs of the type “to see”). The prefix *ga-* is used in Gothic to accentuate the perfective aspect of verbal roots; thus *rinnan* “to run” but *ga-rinnan* “to reach by running,” *frailman* “to ask” but *ga-frailman* “to establish by enquiry,” etc.

So far as thematic stem-formation of the verb is concerned, it is quite clear that in Germanic too as in Sanskrit the *bhū*-class overshadowed all the other root-classes, and in course of time all the other root-classes gradually went over to the *bhū*-class. Roots of this class being radically accented (*bháva-ti*) are easily recognisable in Gothic by surd spirants in root-final (Verner's Law). Thus Goth. *teiha, leiþa, reisa, filha* etc. are all verbs from roots of the *bhū*-class. Verbs of Sanskrit *tud*-class too are easily recognisable in Germanic—e.g. Goth. *trud-an*, in which the sonant root-ending *d* clearly shows that the seat of accent must have been on the following thematic vowel, and the reduced-grade form of the root in which clearly reminds us of Skt. *tud-á-ti*. But already in primitive Germanic verbs of the *tud*-class were transferred to the

*bhū*-class; thus Skt. *juṣāmi*, but Goth. *kiusa* which shows the effect of radical accent.

Germanic roots show all the chief nasal suffixes of Sanskrit, though not necessarily the same root the same nasal suffix both in Sanskrit and Germanic. Thus the Germanic root corresponding to Skt. *pyechāmi* shows a nasal suffix in Gothic (*frallman*) which is in evidence in Skt. *mṛṇāmi* etc. When the nasal suffix consisted merely of *n* it was simply incorporated into the root in Germanic; thus Goth. *skei-n-an* from *skei-* (cf. Goth. *skei-ma*, *skei-rs*), O.H.G. *swinan* from *swi* (cf. Ags. *swī-ma*). All verbal stems in *ll* and *nn* (e.g. Goth. *wallan* *spinnan*) might have been originally roots with the suffix *-n*. There is no clear trace in Germanic of roots with infixed nasal (type: Skt. *muñcāmi*); thus Goth. *tahja* against Skt. *damśāmi*.—Germanic verbs with the present-suffix *-to-* (type: Skt. *dīvyā-mi*) are quite common, and their radical accent too is betrayed by the forms in question; cf. Goth. *þaurja*: Skt. *tīṣyā-mi*, Goth. *da-dđjan*: Skt. *dhāyā-mi* etc.—On the other hand, there is no clear trace in Germanic of reduplicating thematic presents of the type Gr. *gignōskō* etc.

The various athematic presents too have left behind clear traces in Germanic. The Indo-European athematic root *\*es-* shows the same striking ablaut-forms in Germanic as in Sanskrit; thus Goth. *is-t s-īnd* corresponding to Skt. *ās-ti s-ānti*. The characteristic ending *-mi* of this flexion in first pers. sing. is also clearly preserved in Germanic; cf. O.H.G. *gēm* < *\*ga-imi*: Skt. *ēmi*; O.H.G. *stām* < I.-E. *\*sthāmi*; Ags. *cyme*: Skt. *gām-mi* (but Goth. *qīma*): Ags. *swēfan*: Skt. *svāpimi*, etc.—Reduplicating athematic presents of the type Skt. *ju-hó-mi* are still perceptible in Germanic; cf. O.H.G. *bi-bē-t*: Skt. *bī-bhē-ti*, O.H.G. *se-stō-t* < I.-E. *\*si-sthā-ti*, etc.—We have only faint traces of the athematic nasal presents of the type Skt. *krī-ṇā-mi*; cf. Goth. *kun-nu-m*: Skt. *jā-nī-māḥ*. Some of the most important I.-E. athematic roots with the suffix *-nā* have gone over to the normal *bhū*-type in Germanic; thus Skt. *badh-nā-mi*, but O.H.G. *bindan* (like Avestan *bandāmi*, from the same Indo-European root). The same transfer to the main thematic type is in evidence also in the case of Indo-European athematic verbs with the suffix *nu*: *no* (type: Skt. *sunóti*); thus Skt. *stighnóti* but Goth. *steiga*. Athematic nasal presents of the type *ruṇāddhi* have in the same way been robbed of their root-suffix in Germanic, thus Skt. *riṇākti* but Goth. *leiþa*.

Coming now to the perfect-system, the first thing we have to note is that reduplication as a principle of perfect-formation has been mostly given up in Germanic. Corresponding to Skt. *bibhēda wawārta sasāda* we have therefore in Gothic simply *bait warþ sat*. The shift of accent among congeneric perfect forms (*bibhēda*: *bibhidūḥ*) is however revealed in Germanic by grammatical alternance; cf. Goth. *aih*: *aigum*, *þarf*: *þaurbum*, O.H.G. *sneid*: *snitum*,

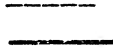
*zôh* : *zugum*, etc. Though tempting, it is not permissible to connect these unreduplicating perfect forms with Skt. *pet-â-tuh* etc., for the latter may be explained as an entirely internal phenomenon of Sanskrit (see LIS., p. 79). Otherwise, however, they would have to be regarded as a striking common Indo-Germanic innovation.—As examples of Germanic reduplicating perfects may be mentioned Gothic *aukan* : *ai auk*, *haldan* : *haihald*, *haitan* : *haihait*, *hōpan* : *hōaihōp* etc. The vowel *e* (written *ai*) of the reduplication syllable in these forms is clearly of Indo-European antiquity (see LIS., p. 37). If the verb begins with consonant+*l*, *r*, then only the first consonant is reduplicated in Gothic, cf. Goth. *sai-slēp* *gai-grōt* from *slēpan* "to sleep" and *grētan* "to weep" respectively (Streitberg, p. 148). Analogous phenomena also in Skt. *śt-ślēṣ-a* from *ślis*, *su-srāv-a* from *sru-*. But the whole initial group is repeated in Gothic if it is *sk* or *st*; cf. *af-skai-skaid*, *ga-stai-stald* (Jellinek, § 186).

Augment-tenses have lost the augment in Germanic (with the exception of the aorist form Goth. *iddja* < prim. Germ. \**i* *l̥tēd* < I.-E. \**é-l̥-ē-t* > Skt. *āyāt*). The purpose of the augment is served in Germanic by a dental suffix of unknown origin which serves to form weak preterites.† In modern Germanic languages the verbs forming their preterites with this dental suffix (cf. Engl. *heard*, Germ. *hörte* etc.) are called *weak* as opposed to *strong* verbs whose preterites are derived from unreduplicating Germanic perfects discussed above (Goth. *warþ sal* etc.). The dental suffix of the weak preterite is a striking innovation of the Germanic verbal system. Some Germanic roots partake of the characteristics of both strong and weak verbs; thus Goth. *bringan* : *brahta*, O.H.G. *biginnan* : *bigonta* etc.—It may be mentioned in passing that in primitive Germanic there were quite a number of preterital presents of the type Skt. *vēda* < I.-E. \**goida*; thus we have in Gothic *kann þarf skal mag* etc.

Subjunctive is the most important mood after the indicative, but it has completely disappeared in Germanic. The optative however is still clearly recognisable by its characteristic suffix *-oi* (see LIS., p. 158); cf. Goth. *bairais bairaiþ* : Skt. *bhāreḥ bhāreṭa*.—As for imperative, there is no trace in Germanic of the ending *-dhi* in 2. pers. sg. of the athematic conjugation. Curiously enough, the Sanskrit imperative ending *-u* seems to be preserved in some Gothic imperative forms of the third person singular and plural like *at-steigadau*, *liugandau* (see LIS., p. 39). It is evidently this same *-au* which is in evidence in all the quotable forms of passive optative in Gothic. Cf. singular first and third persons *haitaidau*, second person *haitaizau*; plural first and third persons *bigitaindau*, second person *fragimaindau* (Jellinek, § 183).

†It is usually held that this dental suffix is the remnant of I.-E. *dhē-* (Skt. *dhā-*) supposed to have been used periphrastically in primitive Germanic to express past tense.

Germanic personal endings have either disappeared phonologically or been very much reduced, but, as the forms quoted in course of this chapter will clearly show, they faithfully continue the Indo-European tradition. The fuller passive endings have been naturally best preserved, e.g. Goth. *-za -da -nda* corresponding to Skt. *-se -te -nte*. Thus to Skt. *bhāre bhārase bhārate bhārante* should have corresponded in primitive Germanic *\*berai \*berazai \*beradai* and *\*berandai*.



# MISCELLANEA

( 1 )

## TAXILA CASKET INSCRIPTION OF KANIṢKA RECONSIDERED

This inscription is engraved on a relic casket found by Spooner during the course of excavations at Shāh-jī-kī Dheri in 1908-1909. It was first edited by him in *An. Rep., A.S.I.*, 1908-09, pp. 51 & ff., and later on by Prof. Sten Konow in *C.I.I.*, Vol. II. Pt. I. p. 137. Despite the editing of this inscription by these two eminent scholars the record is still susceptible of a better interpretation.

Spooner edited the inscription in different and almost disconnected bits.

*Acaryana[m] Sarvastivadina[m] pratigrahe.*

“For the acceptance of the doctors of the Sarvāstivādin sect.”

*Deyadharmo Sarvasattvana[m] hidasuhartha[m] bhavatu.*

“May this pious gift abound to the welfare and happiness of all beings.”

*Dasa Agiśāla navakarmi Kanaiśka vihare Mahasenasa Saṅgharame.*

“The slave (or servant) Agiśāla, the overseer of works at Kaniśka's vihāra in the saṅghārāma of Mahāśēna.”

*Prof. Sten Konow's Text :*

L. 1    Saṁ [I ma] [haraja\*] sa Kani(ṇi) [śkasa]. imaṇa(na)g(r)ar[e]  
[dha] . . g(r)aryaka.

L. 2    deyadharme Sarvastvana[m] (ṇaṁ) hidasuhartha[ni] bhavatu.

L. 3    dasa Agiśāla ṇa(na)vakarmia [Ka]ne(ṇe)śkasa vihare Mahasen(ṇa)sa saṅgharame.

L. 4    acharyana(ṇa) sarvastivatina(ṇa) pratigrahe.

*Translation.*

In the year 1 of (the mahārāja) Kaniśka, in the town ima, connected with the . . . mansion, this religious gift—may it be for the welfare and happiness of all beings—the slave Agiśāla was the architect,—in Kaniśka's Vihāra, in Mahāśēna's Saṅghārāma, in the acceptance of the Sarvāstivādin teacher.

With due respect to Prof. Sten Konow there is no good *anvaya* in his interpretation also. It is better therefore to translate the inscription by dividing it into the following sentences :



- L. 1. Sañi [1 ma] [haraja] sa Kaṇi[ṣkasa] ima nag(r)are[e]  
[dha] .. g(r)aryaka.  
2 deydharne sarvastvaṇa[m] hidasuhartha[m] bhavatu  
[1\*].  
L. 3 dasa Agiśala ṇa(na)vakarṇia[1\*] [Ka]ṇeṣkasa vihare Ma-  
hasenasa saṅgharame [1\*].  
4 acaryaṇa Sarvastivatiṇa pratigrahe [1\*].

*Translation.*

In the year 1 (is) the religious benefaction of Mahārāja Kaniṣka in this town, which may be for the welfare and happiness of all beings.

(The words immediately following Kaniṣka are so badly preserved as to give no connected sense).

Slave Agesilaos was the architect for the temple (*vihāra*) of Kaniṣka in the Monastic Establishment (*saṅghārāma*) of Mahāsena. (*This is*) a gift to the Sarvāstivādin teachers.

In view of this translation some words in the inscription require explanation.

*Navakarmia*.—Spooner has translated *Navakarmi* as “the overseer of works” at Kaniṣka’s *Vihāra*, while Prof. Sten Konow, who takes the word as *Navakarmika* translates it as meaning ‘an architect.’ Here it is desirable to point out the occurrence of this word in two other Kharoṣṭhī records. In the Taxila Copper Plate Inscription of Patika, Rohiṇimītra is mentioned as a *Navakammika*—*Navakarmika*, while the Hidda inscription mentions the name of Saṅghamītra as a *Navakarmika* (*Saṅghamītrenā navakarmienā*). Either translation is satisfactory.

*Parigrahe* or *Pratigrahe*.—Spooner had at first read it as *Pratigrahe*. According to lexicons, the word should mean a ‘gift.’ But what was the gift of Kaniṣka? Was it the casket or the place where it was deposited, namely a *Stūpa*? If it is taken in the sense of a gift of casket, naturally we are taking it in a very narrow sense. This would not clear up the meaning of *Navakarmika*. It should therefore be taken in the wider sense of a *Stūpa*, which seems to have been constructed by Kaniṣka for the Sarvāstivādins. Thus the slave Agesilaos was the architect for the construction of this *Stūpa*.

In coming to the conclusion, two other points deserve consideration. The first is the distinction between a *vihāra* and a *saṅghārāma*. According to Kern, *vihāra*, as a rule, denoted a temple where worship was conducted, while *saṅghārāma* was always a Monastic Establishment. Therefore it would appear that the temple was already erected by Kaniṣka for the Sarvāstivādin teachers. The construction of the *Stūpa* where the casket was enshrined is the gift of Kaniṣka specified in this record.

In this very inscription, there appear to be two forms of Kaniṣka, one with *ikāra* and the other with *ekāra*. The Kaniṣka who constructed the Vihāra is mentioned as Kaneṣka but the donor of the Stūpa is mentioned as Kaniṣka. Were there two Kaniṣkas? Possibly not.

The second question relates to the identification of Mahāseṇa. Who was this Mahāseṇa? In the inscription he is credited with the construction of a Saṅghārāma or Monastic Establishment. Was he the same Mahāseṇa who is identified with king Pradyota of Avanti, a contemporary of Buddha and Ajātaśatru? Did he establish a Buddhist monastery at Taxila, just as Anāthapiṇḍika did the Jetavana at Śrāvastī?

These are the queries on which I hope eminent Buddhist scholars like Drs. B. M. Barua, B. C. Law and N. Dutt, would come forward to throw some light.

BAIJ NATH PURI

( 2 )

### KĀKAVARṆA, KING OF MAGADHA

Prof. H. C. Raychaudhuri drew the attention of scholars to an interesting story, referring to Pratihāra Bhoja of Kanauj, in the Vastrāpatha-māhātmya section of the *Skanda-Purāṇa*.<sup>1</sup> It was pointed out that the details of the story, as in other priestly legends, belong to the domain of fairy tales and are absolutely unhistorical; on careful examination, however, the Professor discovered three grains of historical truth underneath the above details.

Careful examination may lead to similar results with regard to some other Purāṇic stories. As I am trying to show in the present note, a story in the *Bṛhaddharma-Purāṇa* (Bangabāsi ed., Madhyakhaṇḍa, ch. 26) appears to refer to Kākavarṇa, a pre-Mauryan king of Magadha, who is represented in the genealogical sections of the Purāṇas as the son and successor of Śiśunāga. The story is given in the following verses :—

कीकटे नाम देशेऽस्ति काककर्णख्यको नृपः ।

प्रजानां हितकृन्नित्यं ब्रह्मद्वेषकरस्तथा ॥ 20

1. *I.H.Q.*, March, 1929, p. 129ff.; *Studies in Indian Antiquities*, p. 146 ff.

तस्य धर्मकथा विप्र कर्णे वज्रायते द्विज ।  
 रजसा तमसाविष्टः सततं स नृपेश्वरः ॥ 21  
 तत्र देशे गया नाम पुण्यदेशोऽस्ति विश्रुतः ।  
 नदी च कर्णदा नाम पितॄणां स्वर्गदायिनी ॥  
 तद्विक्पराङ्मुखो राजा न कोऽपि च प्रयाति वै ॥ 22  
 अथ तत्र वणिक्कश्चित् तस्य दर्शनमागतः ।  
 गङ्गास्नानरतः साधुर्गङ्गास्नानसमन्वितः ॥ 23  
 स वै बहुधनं तस्मै ददौ भूपाय वै वणिक् ।  
 तेन तस्य सह प्रीतिर्गङ्गास्नानविरोधकृत् ॥  
 वणिक् सोऽपि नृपप्रीत्या तत्र वासं चकार ह ॥ 24  
 तद्वर्षाभ्यन्तरे तस्य काककर्णस्य भूपतेः ।  
 महादाहज्वरात्तस्य मृत्युकालो ह्युपरिथतः ॥ 25  
 तदा स वणिजं दृष्ट्वा राजा परमनारितकः ।  
 रुरोद तस्य विच्छेददुःखाप्यनुभवन् बहु ॥ 26

काककर्ण उवाच ।

सखे वणिङ्महाभाग त्रियेऽहं नात्र संशयः ।  
 त्वं मे सुताञ्छिशून् राज्यं समृद्धं बलवत्तरम् ॥ 27  
 पायाद्यथा त्वया त्यक्तो याम्यहं मरणं प्रभो ।  
 त्वं मे सुहृत् सखावन्धुर्विश्वारयः सर्वकर्मसु ॥ 28, etc. etc.

The points that appear to be interesting in this story are :—

- (1) the peculiar name of the king who ruled over Kīkaṭa (=Magadha) comprising the Gayā region ;
- (2) his description as **प्रजानां हितकृग्नित्यं** (one who always does good to his subjects), but also as **ब्रह्मद्वेषकर** (a hater of the Brāhmaṇas) and **परमनारितक** (a great non-believer);
- (3) his great concern at his deathbed for his kingdom and his minor sons ;
- (4) appointment of a friend to protect his kingdom and sons after his death.

We know from the Purāṇic lists that Śiśunāga was succeeded on the throne of Magadha by his son Kākavarṇa who appears to have

been called Kālāsoka in the Ceylonese chronicles and Kākavarṇin in the *Aśokāvadāna*. He was a Buddhist, and the second Buddhist Council of Vaiśālī was probably held during his reign. He is also said to have transferred the capital from Rājagṛha to Pāṭaliputra. According to the Ceylonese chronicles, he was succeeded by his ten sons who are supposed to have ruled simultaneously.<sup>2</sup> Bāṇa, in his *Harṣacarita* (Parab's ed., p. 199), says that Kākavarṇa, son of Śiśunāga, was found with a dagger thrust into his throat in the vicinity of his city. The story of the tragic end of the king is supposed to be confirmed by the evidence of the classical writers. According to Curtius, the last Nanda king's father "was in fact a barber, scarcely staving off hunger by his daily earnings, but who from his being not uncomely in person had gained the affections of the queen, and was by her influence, advanced to too near a place in the confidence of the reigning monarch. Afterwards, however, he treacherously murdered his sovereign and then, under the pretence of acting as guardian to the royal children, usurped the supreme authority, and having put the young princes to death, begot the present king." This murdered king is supposed to have been Kākavarṇa=Kālāsoka.<sup>3</sup>

Kākakarna, the name of the king in the story of the *Bṛhad-dharma-Purāṇa*, may no doubt be a clerical mistake for Kākavarṇa. Students of the Purāṇas know that there are numerous variant readings of the same name not only in the different Purāṇas, but also in different manuscripts of the same Purāṇa. The reference to Kākakarna's rule over Kikaṭa which is another early name of the Magadha region,<sup>4</sup> and to his anti-Brahmanical leanings that may be interpreted as due to his Buddhist faith, suggests this king's identification with the celebrated Kākavarṇa-Śaiśunāgi of Magadha. The anxiety he felt for his kingdom and minor sons before death and the appointment of a friend as the protector of both his kingdom and children again appear to be an echo of the actual facts hinted at by Bāṇa and the Classical writers. The "barber" mentioned in the Classical version of the story seems to have been called a "merchant" in the story of the *Bṛhaddharma-Purāṇa*.

DINES CHANDRA SIRCAR.

2. This may refer to the fact that they were minors.

3. Raychaudhuri, *Political History of Ancient India*, 4th ed., pp. 180-81, 187. After the preparation of this note, I have noticed that the story of Kākakarna has been referred to in the same work, p. 95.

4. *Studies in Indian Antiquities*, p. 18.



## REVIEWS

THE MAHĀBHĀRATA, UDYOGAPARVAN (2), Critically edited by Sushil Kumar De; Poona, Bhandarkar Oriental Research Institute, 1940.

In this fascicule Dr. S. K. De has completed the Udyogaparvan of the Poona edition of the Mahābhārata which has justly come to occupy the highest place among the publications made in India in connection with oriental research. The designation "fascicule" ill suits a volume of 340 quarto pages of text and supplements excluding a long and very instructive introduction of over 50 pages. If this "fascicule," what is then "fascis"?

Adhering to the policy laid down by the General Editor, Dr. De has "avoided *emendations* as far as possible, there being...only 7 altogether in the entire text," and the *lectio difficilior* has throughout been justly given preference where other things are equal. The text thus reconstructed with meticulous care reveals many interesting facts. It proves, for instance, that the hiatus was by no means an unwelcome feature in epic verse, but from the editor's remark it is not clear whether the hiatus was allowed by preference within pādas or between them. Dr. De has pointed out two cases of metrical shortening: even in the R̥gveda metrical shortening is of such rare occurrence that one might be inclined to think that in the epic period there was perhaps some sort of *grammatical* support as well for these two cases, viz. *gaṅgāyamuna-saṅgame* and *pādāṅguṣṭhāgradhiṣṭhitā*. In the latter case, at all events, the prefix might have been *dhi* instead of *adhi*:—In view of the fact that the dative and the genitive had got much mixed up in the Brāhmaṇa-period, the form *rādhāyāḥ* in 5. 139. 5 should perhaps be regarded as an archaism.

Dr. De's critical estimate of the various recensions and commentaries based on laborious collation and comparison will wring admiration even from flintiest of critics.

BATAKRISHNA GHOSH.

DVĪPAMAYA-BHĀRATA (Bengali), by Sunitikumar Chatterji, pp. 396, Calcutta 1940. Published by Book Company Ltd.

Twelve years ago, as a young man just out of teens, I read with avidity and interest Prof. Chatterji's chronicle of travels in insular India with Dr. Rabindranath Tagore which he then published in pieces in the various Bengali journals of Calcutta. Now Prof. Chatterji has brought out those scattered articles in a beautiful volume which, I am sure, will be treasured as one of the best books in Bengali produced in this century. As a travel-book it is indeed

unique in our literature. When reading it I was constantly reminded of Keyserling's famous dictum : *der Weg zu sich liegt die Welt herum*. It is easy to see that these travels have helped Prof. Chatterji to find his own self. Like a true artist that he is in spite of his profound scholarship, Prof. Chatterji was deeply moved by all that he saw. But his personal culture is so deeply rooted in the glorious traditions of India that his colourful experiences though adding new hues to his powerful mind could not in any way shake its foundations. Naturally, Prof. Chatterji's book is utterly unlike those nauseating publications by men who spend their days in India with a telescope in hand, pointed towards Europe,—which it is their usual practice to discard in favour of a microscope if by any chance they can manage to pass the Suez Canal! The accounts published by these unconscious humourists always remind me of Count Smorltork immortalised by Dickens.—Since the book is written by its author it contains a mass of useful information about the art, archæology, history and languages of India and Greater India presented in an attractive form. Altogether the book is delightful.

BATAKRISHNA GHOSH.

STUDIES IN THE PURĀṆIC RECORDS ON HINDU RITES AND CUSTOMS, by R. C. Hazra, pp. VII+367; published by the University of Dacca (Bulletin No. XX), 1940.

This is one of those few books which come—to stay. An enormous amount of labour and research has gone into the making of this book which even an adverse critic—if there is any—must respectfully recognise. The subject so ably handled by the author, a worthy pupil of Dr. S. K. De, is truly fascinating. The Purāṇas have hitherto been utilised chiefly for dynastic chronology, though the chief reason why the Purāṇas were shunned in the other fields of Indology was the absence of any dependable chronology of the Purāṇas themselves! To go to his job Dr. Hazra therefore had to establish at first a dependable chronology of each Purāṇa and this he has done literally by chapter and verse. In this way the author came to the conclusion that the Purāṇas on the whole reflect the Indian society of about 200 A.D.—In estimating the real value of Purāṇic evidence however I must differ from the author on some essential points. The corpus of the Purāṇas arose, it is true, in a period of chaos as Dr. Hazra has amply demonstrated. But should not the author have made it clear that in bewailing the infringement of the Varṇāśramadharma the Purāṇic authors were breaking their hearts over a thing that had never existed? In the Vedic period the Varṇāśramadharma as popularly understood did not exist. In the age of the Upaniṣads the Kṣatriyas used to teach the Brāhmaṇas. And after the rise of

Buddhism we find in India a fluid and mobile class-system masquerading as Varnadharmā. There is nothing to prove that the Varnadharmā was ever more rigorously enforced than the Āśramadharmā which for all practical purposes existed in theory alone.—This is, however, by the way. I have learnt much from this book. But I hope to learn more from other publications of Dr. Hazra on the same subject.

BATAKRISHNA GHOSH.

A HITTITE GLOSSARY; words of known or conjectured meaning with Sumerian and Akkadian words occurring in Hittite texts by Edgar H. Sturtevant; second edition, Linguistic Society of America, University of Pennsylvania, Philadelphia 1936; pp. 192.

We have not even begun Hittite studies in India. But the best talents in other countries are being more and more drawn towards this branch of Linguistics. Professor Sturtevant is an outstanding example of this new movement. His "Comparative Grammar of the Hittite Language" (1933) is recognised as the best text book on Hittite linguistics all over the world. In the preface to this Comparative Grammar Prof. Sturtevant promised two more volumes: one consisting of an etymological and comparative treatment of the indeclinable words and an essay on syntax, and the other of texts in cuneiform characters, with transliteration, translation, commentary and vocabulary. These two volumes, so far as I know, have not yet appeared,—at least they have not reached India. Prof. Sturtevant has apparently thought it more necessary to prepare a revised edition of his Hittite Glossary. In his own words, it is "primarily an index to the literature about Hittite words." The importance of such a book on a branch of Linguistics still in its formative stage cannot be overestimated, though in India we have access to only a small part of the source-books (mostly periodicals) referred to. It is to be hoped however that this book will awaken adequate interest in Hittite studies in India.

BATAKRISHNA GHOSH.

BIBLIOGRAPHIE BOUDDHIQUE, VII-VIII (Mai 1934 Mai 1936) par A. J. Bernet Kempers and others. Rétrospective: L'œuvre complet the Sylvain Lévi; Bibliographie par Maurice Maschino, Index par Nadine Stchoupak. Paris 1937.

The "Bibliographie Bouddhique" requires no introduction to Orientalists to-day, for every serious student of Buddhism must have it at his elbow. A special feature of the present volume is that it gives a complete bibliography



of the publications of the late Prof. Sylvain Lévi bearing on Buddhism. It will be an irreparable loss to science if due to the unstable conditions now prevailing in Europe the publication of this very useful bibliography were stopped.

BATAKRISHNA GHOSH.

DOCTRINE OF ŚAKTI IN INDIAN LITERATURE, by the late Dr. Prabhat Chandra Chakravarti, pp. 123, Calcutta 1940.

This is an incomplete work by the late Professor Chakravarti. The term *śakti* as used in the Indian philosophical literature signifies "potency." This "potency" was at the root of the *satkāryavāda* of the Sāṅkhyas. But the Buddhists too, who to the last held fast to the doctrine of instantaneous annihilation, believed in *śakti*, and they refused to accept space as entity on the ground that space has not the "potency" to produce effective action (*arthakriyā*). The anomaly of their position became still more obvious when under the hammer-blows of the Mīmāṃsakas and the Naiyāyikas they had to confess to a "residue" (*anuśaya*) of the annihilated *kṣaṇa*—thus in a way going back to the old *satkāryavāda*. To less heroic spirits causality appeared to be so utterly inexplicable and mysterious that they sought refuge in *śaktivāda*, the nearest Indian parallel to Bergson's *élan vital*. Prof. Chakravarti intended to investigate in detail this *śaktivāda* in the philosophical literature of India. But death snatched him away before he could finish his work.

BATAKRISHNA GHOSH.

KAPPHIṆABHYUDAYA, A MAHĀKĀVYA OF ŚIVASVĀMIN, critically edited by Gauri Shankar, M.A., B. Litt. (Oxon), Lecturer, Government College, Lahore, and published by the University of the Punjab; pp. lxxxviii+165+xviii; 1937.

We extend our congratulations to the editor on his presenting the public with a typical Mahākāvya coming from the pen of the talented Kashmirian Śivasvāmin who flourished under the patronage of King Avantīvarman of Kashmir who reigned between 855 and 883 A.D. Some stray verses of the work were known from some anthologies and a few quotations. This was the only information about the treatise. But thanks to the untiring endeavour of Dr. Shankar the text has been critically edited after collation of several MSS. and transcripts. The content bespeaks the amount of sincere labour he has spent over the volume.

Śivasvāmin was a Hindu belonging possibly to the Śaivite sect as can be inferred from his Praśasti (XX. 45) where he dedicates his Kāvya to the God

Śiva. He was considerably influenced by the Buddhistic philosophy as is discernible in his use of the Buddhist nomenclature and philosophical concepts in the work itself. For instance, he introduces the Pratītya-samutpāda of the Buddhists in the concluding canto. He draws upon a legend of the Buddhistic lore, viz. Avadānaśataka, but ultimately Hinduises the theme in that his Buddha does not instantly invite the vanquished king to enter the fold of his creed but directs him to discharge his royal duties desirelessly. This is nothing but enjoining the Karma-yoga of the Bhagavad-Gītā. Dr. Keith is evidently wrong when he says that the author was a Buddhist, and therefore chose a legend from the Avadānaśataka (Classical Sanskrit Literature, p. 60).

The following is the story of the Avadānaśataka couched in 20 cantos here. Kapphiṇa, the king of Līlāvati, a town on the Vindhya, is seated in council when a spy visits him with the information that Prasenajit, the ruler of Kośala, has grown hostile towards him. Then sits a council of war where as many as 41 vassal chiefs participate in the debate. The decision favours a concerted action against Prasenajit, but before that an envoy is sent to him so that he may read their intention beforehand. At this stage occurs a digression from the main thread of the story which proves helpful to the poet. A Vidyādhara friend of Kapphiṇa invites and accompanies him to the Malaya where the big royal party amuses itself by various merriments. The messenger arrives in Kośala and pleads before the king to submit to Kapphiṇa. But Prasenajit, enraged at his words, rejects his proposal in contempt and speaks out his decision that he will rather meet Kapphiṇa in the battlefield. The messenger returns to Līlāvati and delivers the message to the king. The king marches immediately against Prasenajit. Several rounds of battle are fought between the two armies. Prasenajit takes to eulogise the Buddha when he loses all hope of victory. The latter works miracles successfully to subdue Kapphiṇa. Canto xix consists of the praise of the Buddha by Kapphiṇa. The whole canto is in a peculiar Prākṛit, rather a mixed form of Sanskrit and Prākṛit, as the editor holds. Nowhere else in any Sanskrit Mahākāvya is to be found a whole Canto composed in Prākṛit. At the conclusion of the story Kapphiṇa is shown to be an ideal king prepared to serve the cause of the Triratna at the exhortation of the Buddha who advises him to wait until the proper time for renunciation comes.

A glance at the treatment of the topic convinces us that Śivasvāmin has closely followed in the footsteps of his predecessors Māgha and Ratnākara, a fact which has been conclusively proved by the editor in his laborious search for parallelisms from the works of these authors, viz. Śiśupālavadha and Hara-vijaya respectively. The poet writes in the artificial epic style like his compeers. His command over the Sanskrit vocabulary can be compared with that of Bāṇabhaṭṭa and Māgha. He successfully handles the different Alaṅkāras, specially Śabdālāṅkāras together with citra-kāvya or picture-poetry of various denominations. No less than 47 varieties of Śabdālāṅkāras have been illustrated, almost all of which are in canto xviii. To suit this special requirement the

poet makes this canto the longest of all. Amongst the Alaṅkāras may be mentioned the Yamakas of various types (e.g. yamaka-pratiloma-bandha, sandaṣṭa-yamaka, sampuṣṭa-yamaka, mahā-yamaka, etc.), Āvali, Lalita, Muraja-bandha, Kāñcī-bandha, Padma-bandha, Gomutrikā-bandha, and so on. Sometimes he uses only one or two consonants throughout the whole verse. The work as such may be well utilised for the study of śabdālaṅkāras. The Arthāntara-nyāsas interspersed throughout the Mahākāvya are an unmistakable sign of a master artist who oftentimes soars high in the realm of genuine poetry. The editor has enhanced the value of the work by adding several illustrations of the Citra-Kāvyas at the end. The poet is a gifted metrist. The work is very rich in metrical varieties as it contains not less than 43 metres whereas we know that Māgha has employed 41 metres in all. In the expression 'candramakhaṇḍita' (viii. 41) the poet intentionally drops the Visarga in 'candramah' metri causa.—The work may be profitably studied by all students of the Kāvya literature.

JAGADISH CHANDRA MITRA.

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## IMPORTANT CONTRIBUTIONS TO ORIENTAL JOURNALS

*Annals of Oriental Research of the University of Madras, Vol. IV, part 2.*

Vyavahāraśiromaṇiḥ of Śrī-Nārāyaṇa edited by T. R. Chintamani.—The Sanskrit text of the short Nibandha consisting of following sections:—*Vyavahārādi-prakaranaṃ, Āvedanakāṇḍaḥ, Vyavahāramātṛkāṇḍaḥ, pramāṇakāṇḍaḥ, ṛṇādānaprakaraṇam, nikṣepopanidhiprakāraḥ, sambhūyasamutthānam, dattāprādānikam, ajñānasya bhūvarūpatvapratipādanam, and abhāvasamarthanam.*

Women characters in Kālidāsa's Dramas by V. Raghavan.—Excellent appreciation of some of the poet's female characters.

Hindi, High Hindi, Urdu, Dakhini, Hindusthani by S. Muhammad Husayn Nainar.—An authoritative account of the rise and development of Hindi and Urdu.

Place-name suffixes in Tamil by R. P. Sethu Pillai.

Development of the Telugu Language (in Telugu) by K. Ramakrishnaya.

*Calcutta Review, Vol. 77, no. 1, October 1940.*

History of the Bengali Novel by Srikumar Banerjee.—The author gives a systematic survey of the Bengal Novel from the beginning of the nineteenth century to the present day.

Notions on Purification and Taboo in Society by Bhupendranath Datta.—An ethnological study on superstitions in Egypt, Babylonia, Palestine, Persia, Greece, Rome—and India in particular.

Java in Asiatic History and Culture by Kalidas Nag.—A survey of the archæological work in Java and its bearing on Indian history and culture.

*Epigraphia Indica, Vol. XXV, Part IV, October 1939.*

Three Copper-plate Grants from Mayurbhanj by R. C. Majumdar: A. Ādipur Copper-plate of Narendrabhaṇjadeva. (Is of great historical importance as it furnishes new materials for the reconstruction of the history of the Bhanja dynasty. "Assuming that the Harṣa era was used, the date of the present Grant would be A.D. 899"). B. Ādipur Copper-plate of Narendrabhaṇjadeva (close copy of A). C. Keśari Copper-plate of Śatrubhaṇjadeva (was first published in IHQ. Vol. XIII, pp. 429 f. and 431).

An Incomplete Grant of Sinda Ādivyavarman: Saka 887, by V. V. Mirashi and M. G. Dikshit. A long inscription in good Sanskrit recording grant

of village to the Brāhmaṇa Navaśiva, son of Candrabhaṭṭa, who belonged to the Kauṇḍinyagotra and was a student of the Bahvṛca-śākhā and an émigré from the Madhyadeśa.

Halāyudhastotra from the Amarsvara temple by P. P. Subrahmanya Sastri.—The whole Halāyudhastotra, the author of which might have been the same person as the renowned commentator on Piṅgala's Chandaḥsūtra, preserved in stone inscription (date A.D. 1063 or 1163).

Two Inscriptions on Copper-plates from Nutimadugu by N. Lakshminarayan Rao.—“The set of plates is a palimpsest containing two records, one, an Eastern Cālukya grant of the 10th century A.D., and the other, which has been engraved over the earlier inscription, of the time of the Vijayanagara prince Triyambaka.”

*Indian Historical Quarterly*, No. 3, September 1940.

Indo-European in the Mediterranean Area by A. B. Keith.—A brilliant survey of the recent linguistic and achæological discoveries made in the region of eastern Mediterranean without any effort to reach forced conclusion. Rich bibliographical material.

India and the Archæology of Malaysia and Indonesia by Kalidas Nag.—Objective account of archæological and anthropological researches in this area.

The Date of the Sanskrit Inscription of Vo-canḥ (South Annam) by Georges Coedès.—“It is a noteworthy fact that in the linguistic Indianisation of Indo-China neither the Prākṛits nor the vernacular languages did play any part.” Author shows that the earliest Skt. inscription of Indo-China should not have been later than the 3rd century A.D.

The oldest Representation of the Śākta Cult in Bengal Art by U. N. Ghosal.—“The Paharpur plaque would be the oldest known representation of the Śākta cult in Bengal” (7th century).

Devices on some Tribal Coins by Jitendra Nath Banerjea.

A large Hoard of Sātavāhana Coins by V. V. Mirashi.—In this hoard are coins of some Sātavāhana kings whose names were hitherto quite unknown.

Symbols in Early Indian Jewellery by Kalyan Kumar Ganguli.

Proto-Indian Ceramics by S. Srikantha Sastri.—Author has tried to prove that the *viśāḥ asiknīḥ* of the Ṛgveda were the Sumerians and is tempted to identify the Sobharis with the Subaracans, and concludes that the Harappa culture cannot be brought down to such a late date as 2700 B.C.

Rūpamaṇḍana and the uncommon Forms of Viṣṇu by M. R. Majumdar.—In the light of the text “Rūpamaṇḍana” (15th century A.D.) the author discusses various forms of the Viṣṇu-image.

Alexander's Invasion of India : a revised Study by Rama Shankar Tripathi.—Alexander's Indian campaign as reconstructed by the author on strictly

- historical evidence appears in this article in quite a new light.
- The Andhras and their Position in Brāhmaṇical Society by Dines Chandra Sirkar.—Author has tried to explain why the Andhras were assigned a low position in Brahmanical society.
- A New light on the History of the Cāhamānas by D. C. Ganguly.—Author draws attention to the colophon of the book *Viruddha-vidhi-vidhvaiṃsa* (India Office ms.) by Lakṣmidhara.
- Nilakaṇṭha the Śaiva by Chintaharan Chakravarti.—This Nilakaṇṭha, not the same person as the author of the famous commentary on the Mahābhārata, belonged to the 18th century. He wrote a number commentaries on Purāṇas and Tantras.
- The Authoress Bīnabāyī by J. B. Chaudhuri.—Bīnabāyī lived between the 12th and the 15th century and wrote a Dvārakā-pattala (unpublished) on the basis of the Dvārakā-māhātmya.
- On the Identity of the two Patañjalis by L. Renou.—Agreeing with Jacobi and differing from Liebich Professor Renou here has proved on grammatical grounds that the author of the Mahābhāṣya could not have been the same person as the author of the Yogasūtra.
- The Arab Conquest of Sind by Sailendra Nath Dhar.—In author's opinion the conquest is not explained by the superstitious beliefs of the conquered, but by the superior military and political power of the Arabs.
- Nature of Indo-Aryan and Indo-Islamic Polity by H. N. Sarma.—In author's opinion, attempts were made in Ancient and Medieval India to dissociate the state from religion and to subordinate the latter to the former.
- A forgotten treaty between Shujauddaulah and the English by Nandalal Chatterji.
- The Ostend Company in Bengal by Kalikinkar Datta.—This Company, floated by the merchants of Flanders and formally chartered in 1772, was permitted by Murshid Quli Jafar Khān to establish a factory at Bankybazār at a distance of fifteen miles from Calcutta.
- Baghaura Nārāyaṇa Image-inscription of Mahīpāla by H. C. Ray. Author discusses the problem of the identity of this Mahīpāla.
- Place of Faith in Buddhism by N. Dutt.
- Nairātmya and Karman (the life-long problem of Louis de La Vallée Poussin's thought) by Maryla Falk.

*Journal of the Bihar and Orissa Research Society Vol. XXVI, part III.*

- The name "Chota Nagpur" by Mangobinda Banerji.—Author also discusses other place-names of Chota Nagpur, e.g. "Palamau," "Hazaribagh," "Singhbhum," "Manbhum."
- Tibetan Titbits by S. C. Sarkar. Comments on Tilopā and Nāropā.
- Ninety-three inscriptions on the Kurkihar Bronzes.—Short inscriptions of the Pāla-age in Sanskrit.

*Journal of Indian History Vol. XIX, part 2.*

Origin of Slavery in Indo-Aryan Economy by Atindra Nath Bose.—Not a very careful treatment of the subject.

Some Observations on the Character and Achievements of Candragupta II Vikramāditya by Jagan Nath.

The Vanci Problem by T. K. Krishna Menon.—Discussion as to the location of the original Cera capital—was it on the eastern side of the Western Ghats or on the western side?

Nanak Panthis or The Sikh and Sikhism of the 17th Century (translated from Muhsin Fani's *Dabistan-i-Mazāhib*) by Ganda Singh.

The Fall of Vijayanagar and the Nationalization of Muslim Art in the Dakhan by H. Goetz.—Though defeated and destroyed, yet Vijayanagar influenced the art of the conquerors.

*Journal of the Malayan Branch of the Royal Asiatic Society Vol. XVIII, Part I. February 1940.*

Archæological Researches on Ancient Indian Colonization in Malaya by H. G. Quaritch Wales.—Contains important historical conclusions based on the archæological discoveries.

*New Indian Antiquary, Vol. III, nos. 5-7.*

Non-R̥gvedic Mantras Rubricated in the Āsvalāyana-Gṛhya-Sūtra by V. M. Apte. Elaborate text-critical and exegetical notes.

Sur Les Infinitifs Védiques en -ase by Louis Renou.—Detailed examination of the infinitives in -ase in the Veda.



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## NEW MATERIALS FOR THE STUDY OF THE KUMĀRATANTRA OF RĀVAṆA

By P. C. BAGCHI

A long study on the Kumāratantra of Rāvaṇa by M. Filliozat was published a few years ago in the *Journal Asiatique* (Le Kumāratantra de Rāvaṇa, J.A. 1935 ccxxvi, pp. 1-66). The article contains the critical edition of a short text entitled *Rāvaṇa-Kumāratantra*, its French translation and other parallel documents from the medical treatises in Sanskrit. The text given by M. Filliozat is based on a collation of two printed texts and an unpublished manuscript in the collection of P. Cordier now in the Bibliothèque Nationale de Paris (Sanskrit, no. 129). Of the two printed texts, the first was published from Bombay and the other is contained in the *Cikitsāsāṅgraha* of Cakradatta compiled in the 11th century. Cordier's manuscript is a South Indian copy of a text preserved in the Tanjore Palace Library. The three texts are the same and the slight variations that occur have all been noted by M. Filliozat. The title of the Bombay text is *Laṅkā-dhipatirāvaṇakṛta Kumāratantra*, that of the *Cikitsāsāṅgraha* *Rāvaṇa-Kumāratantra* and that of Tanjore *Rāvaṇakṛtabāla-tantra*.

The Kumāratantra of Rāvaṇa is a treatise on children's disease. It is said that the diseases of children up to the age of 12 are caused by the Mātṛkās who take possession of them on a particular day, or in a particular month or year. The treatment prescribed is purely magical consisting of (i) *bali* to the Mātṛkā, (ii) purificatory bath of the sick child, (iii) fumigation of the child, (iv) a mantra and (v) other works of piety. So M. Filliozat came to the conclusion from a study of the text that little importance is attached to the symptoms of the disease and that only commonplace things that have no place in the medical science have been described. The names of the 12 mātṛkās in these texts are : Nandā, Sunandā, Pūtanā, Mukha-māṇḍitikā, Kaṭapūtanā, Śakunikā, Śuṣkarevatī, Āryakā, Sūtikā, Nirṛtā, Pilipicchikā and Kāmukā. M. Filliozat however admitted that side by side with the regular science a certain importance has been attached to Bhūtavidyā in the matter of children's diseases and in order to elucidate his thesis he has taken into consideration the relevant sections of the standard medical treatises : (a) The Kaumārabhṛtya of the Suśrutasaṁhitā, (b) The section on children's disease in the Carakasāṁhitā, (c) The Kumāratantra of the Aṣṭāṅghṛdaya.

The texts studied by M. Filliozat have no Buddhist character. Cordier, however, described a Buddhist *Rāvaṇakumāratantra* written in prose in a communication to the Congress of Orientalists held at Hanoi in 1902. M. Filliozat was not able to trace this manuscript in Cordier's collection. An illustrated Nepalese manuscript was recently handed over to me by my colleague Dr. Stella Kramrisch for an examination of the illustrations. The manuscript is a continuous one, the pages being stitched together, having a recto and a verso. The first three pages are missing and as the colophon is also lost the title of the text cannot be restored. The recto contained the illustrations of the 9 *grahas*, of which now six only remain. It also contains an account of the influence of these *grahas* on the life of the human beings and also the illustrations of the 12 signs of the Zodiac. The verso contained the illustration of the 12 *graha-mātrkās* of which only 9 now remain and a description of various methods of propitiating these *graha-mātrkās*. The text agrees with the *Rāvaṇa-Kumāratantra* although the title of the text probably occurred in the colophon as [*Dvāda*]śa-*graha-śānti* (?)

The manuscript is of a Buddhist inspiration. This is shown by the illustrations of the *grahas* which are executed in the style of Nepalese miniature paintings of Dhyāni-Buddhas and also by the representation of the third sign of the zodiac as a Buddhist *Yab-yum*. The manuscript is very corrupt; it differs to some extent from the text published by M. Filliozat. It has greater agreement with a Chinese translation of the *Rāvaṇatantra* that is found in the Chinese *Triṭṭaka*.

It is the *Lo-fo-nu shuo kieu leao siao eul tsi ping king* (Nanjio 882, Hobogirin 1330, Bagchi, *Le Canon Bouddhique II*, p. 589, n. 41) or "The sūtra spoken by Rāvaṇa on curing the childrens' disease"—"*Rāvaṇaprokta-bālacikitsā*." It was translated by Fa ū'en (Dharma-deva) who originally belonged to the monastery of Nālandā in India and went to China in 937 A.D. I have thought it fit not only to print the Nepalese text but also to give a tentative translation of the Chinese text as it seems to give a more correct idea of the *Rāvaṇakumāratantra*.

The word *mātrkā* is translated in Chinese as *Yao mu kuei* (planet-mother-demoness) i.e. *graha-mātrkā* and this seems to be the correct appellation of the 12 supernatural beings that cause the disease of children. Simple *graha* of the Nepalese text and *mātrkā* of M. Filliozat's text are misleading, as *Grahas* are generally the nine planets (Ravi, Candra, Maṅgala, Budha, Bṛhaspati, Śukra, Śani, Rāhu and Ketu) and the *Mātrkās* are the Śaktis of different Gods (: Brāhmaṇī, Māheśvarī, Kaumārī, Vaiṣṇavī, Vārāhī, Nārasimhī, Indrāṇī). The twelve *graha-mātrkās* are quite different from them.

The symptoms of the diseases given in the Chinese text are less

commonplace than in other texts and each of the diseases has thus a distinctive nature. The materials for fumigation, the offerings and—most important of all—the mantras are different in each case. This is the reason for which I believe that the Chinese text seems to have preserved the most correct form of the Rāvaṇakumāratantra.

The names of the Grahamātrkāś occur in a different way in the Chinese text. For the facility of comparison the names from different sources are being given side by side. The occurrence of the same names in other sources is indicated by a cross sign :

|    | Chinese Text  | Nepalese Text | Medical Texts          |
|----|---------------|---------------|------------------------|
| 1  | Māṛṇandā      | ×             | Nandanā                |
| 2  | Sunandā       | ×             | ×                      |
| 3  | Revatī        | Pūtanā        | ×                      |
| 4  | Mukhamanḍlikā | ×             | ×                      |
| 5  | Viḍḍālī       | ×             | Kaṭapūtanā<br>T. var.  |
| 6  | Śakunī        | ×             | Śakunika               |
| 7  | Pūtanā        | Śuklā         | Śuṣkarevatī            |
| 8  | Śuṣkā         | Jambukā       | Āryakā                 |
| 9  | Āryakā        | ×             | Bhūsutikā<br>Sūtikā    |
| 10 | Jambukā       | Revatī        | Nirṛtā<br>T. ×         |
| 11 | Pilipicchikā  | ×             | ×                      |
| 12 | Skanda        | ×             | Kāmukā<br>var. Adbhutā |

An altogether new medical treatise entitled Kāśyapasamhitā (or Vṛddhajivakīyatantra) has been recently published from Bombay. It has been edited by Vaidya Jādevjī Trikamjī Ācārya and Somnāth Śarmā of Nepal and published by the Nirṇayasagar Press, Bombay. The Kāśyapa-samhitā is called *Kaumārabhr̥tyam* and deals entirely with childrens' diseases. Although it is said in many places of the

text that the diseases are caused by the Grahas, Piśāca, Yakṣa, Gandharva, Bhūta, Skanda and Apasmāra, the names of the 12 graha-mātrkās are not found in it. It prescribes fumigations in a special chapter called Dhūpakalpādhyaṃya similar to those recommended in the Rāvaṇakumāratantra. In the chapter on Revatīkalpa (p. 158) it mentions the 16 demonesses who destroy the child from the 1st to the 16th day of its birth, each in her turn. They are—Piśācī, Yakṣī, Āsurī, Kālī, Vāruṇī, Śaṣṭhī, Bhīrukā, Yamyā, Mātāṅgī, Bhadrakālī, Raudrī, Vardhikā, Caṇḍikā and Pilipicchikā. In the same chapter (p. 153) Śuṣkarevatī occurs as the name of a type of diseased women. In the 19th chapter (p. 5) which is lost in part we get the names of Śakunī, the two Grahas—Skanda and Śaṣṭhī and Pūtanā. Thus it seems that the Kāśyapasaṃhitā is older than the other *Kaumārābhṛtyas* in which the demoniac origin of the diseases is stated in a more systematised way. This is also the opinion of the Nepal Rajguru Hemarāj Śarmā who has written an introduction of 240 pages that is a monument of his profound scholarship. He says (p. 137)—

अस्यां काश्यपसंहितायां तु कतिपये एव ग्रहपूतनादयः वर्तमानास्तेन  
विभिन्ना ग्रहा नैव स्कन्दरेवतीपूतनादिप्राचीननामभिरेव तेषामुल्लेखः मन्त्रा अपि  
प्रायो वैदिकच्छायानुविधायिनः, क्वचन ( मातङ्गीविद्योपदेशे पृ: १६७ ) प्राकृतशब्दगर्भो  
मन्त्रोपदेशः शैषज्यविषयोऽपि विभिन्न इत्यनयोर्मिथो विभिन्ना प्रक्रिया समुपलक्ष्यते ।  
उभयतो विषयतुलनायां क्रियाकालगुणोत्तरादिनिर्देशेषु विकासादवस्थाक्रियया दर्शनैव  
तदपेक्षया काश्यपसंहितायां बहुप्राचीनसम्प्रदायावलम्बः समीक्ष्यते ।

The Kāśyapasaṃhitā attaches a special importance to Skanda and Śaṣṭhimātā amongst those who are responsible for the childrens' diseases. This agrees with the account of Skanda and the allied divinities given in the Mahābhārata (Vanaparvan, Adh. 227-229). It is stated that the real mother of Skanda was Svāhā. Svāhā assumed the forms of six mātrkās, the wives of the Ṛṣis of the Saptarṣi-maṇḍala, Arundhatī the wife of Vasiṣṭha being too faithful to be deceived, in order to please Agni. Svāhā also assumed the shape of Vinatā, the mother of Garuḍa, in order to throw away the foetus which became Skanda. Later on the six mothers, Kṛttikā and others, who were abandoned by their husbands as well as Vinatā, wanted from Skanda, the privilege of motherhood. They were granted this and it included the power of taking away the lives of young children up to the age of sixteen years.

यावत् षोडशवर्षाणि भवन्ति तरुणाः प्रजाः ।

प्रबाधत मनुष्याणां तावद् पौः पृथग्विधैः । ( 229, 22 )

Hence the six mothers—*Ṣaṣṭhī-mātrkā* had a claim to be propitiated for the safety of children. The terrible *Vinatā* is the same as *Śakunigraha* (*Vān.* 129, śl. 26). Skanda also produced from his body a terrible demon called *Apasmāra* who was ordered to stay near the *Mātrkā*s and exercise a function similar to theirs (*ibid.* ślokas—24, 25). Besides these, Skanda produced from his body a number of daughters and sons who were given the right of exercising an evil influence on the children. Amongst the daughters are found *Pūtanā*, *Śītapūtanā*, *Revatī* and *Mukhamanḍikā* (*ibid.* ślokas 27-30)—

पूतनां राक्षसीं प्राहुस्तं विद्यात् पूतनाग्रहम् ।

कष्टा दारुणरूपेण घोररूपा निशाचरी ॥

पिशाची दारुणाकारा कथ्यते शीतपूतना ।

गर्भान् सा मानुषीणान्तु हरते घोरदर्शना ॥

अदितिं रेवतीं प्राहुर्ग्रहस्तस्यास्तु रैवतः ।

सोऽपि बालान् महाघोरो बाधते वै महाग्रहः ॥

दैत्यानां या दितिर्माता तमाहुर्मुखमण्डिकाम् ।

अत्यर्थं शिशुमांसेन संप्रहृष्टा दुरासदा ॥

It is further stated in the *Mahābhārata* (*ibid.* śl. 36) that they are fond of meat and wine. Skanda and all the *Grahas* are to be worshipped with *bali* and the sick children to be washed and fumigated (śl. 44):

तेषां प्रशमनं कार्यं स्नानं धूपमथाञ्जनम् ।

बलिकर्मोपहाराश्च स्कन्दस्येज्या विशेषतः ॥

एवमभ्यर्चिताः सर्वे प्रयच्छन्ति शुभां नृणाम् ।

आयुर्वीर्यञ्च राजेन्द्र ये भवन्ति प्रहा नृणाम् ॥

Although the 12 *grahas* of the *Rāvanatantra* and other medical treatises are not clearly mentioned in the *Mahābhārata*—the names of six at least : Skanda, *Śakunigraha*, *Pūtanā*, *Śītapūtanā* (probably the same as *Kaṭa*—), *Revatī* and *Mukhamanḍikā* occur there. The six others were probably the six *mātrkā*s (*Ṣaṣṭhī*), *Kṛttikā* and others. I have not been able to find out the names of these six, but probably

Āryā (=Āryakā ?) was one of them (śloka 41 आर्या माता कुमारस्य पृथक्-  
कामार्थमिज्यते ) ।

It is difficult to find out the exact connection between Rāvaṇa and the methods of curing children's disease. Rāvaṇa, the Lord of Laṅkā, is a Rakṣa and like the Yakṣa, Piśāca., Pūtanā, Kaṭapūtanā etc. can destroy the children and can also protect them against evils, when propitiated. Rāvaṇa also is the name of a Yakṣa, the protector of the country of Ramaṭha in the North-west of India (Lévi—*Le Catalogue géographique des Yakṣa.* J. As. 1915, p. 56). Then again Laṅkeśvara is the name of another Yakṣa, who is the protector of Kāpiśī (*ibid*, p. 52).

The relation of the Yakṣas with childrens' disease is also apparent from the Kāśyapasaṁhitā. The Kāśyapasaṁhitā, we have seen, is a *Kaumārabhṛtya* or a treatise on childrens' disease. It is said that the author of the work received the Tantra from the Yakṣa Anāyāsa.

अनायासेन यक्षेण धारितं लोकभूतये ।

वृद्धजीवकवंश्येन ततो वात्स्येन धीमता ॥

अनायासं प्रसाद्याथ लब्धं तन्त्रमिदं महत् ।

(*Kāśyapasaṁhitā*, p. 197.)

Anāyāsa is really the name of a Yakṣa in the list of Yakṣas in the Mahāmāyurī (Lévi, *loc. cit.* p. 48). He is the protector of the city of Kauśāmbī.

# I

## DVĀDAŚA GRAHA ŚĀNTI (?)\*

[III]. Oṁ Pūtanā nāmagraha. tṛtīye māse tṛtīye varṣe [pūtanā nāma grahaṇa gṛhītasya] etad bhavati lakṣaṇaṁ | kāsate kaṁpate kīṛṇa (?) rudatī cchadanti gātraṁ saṁkocayanti | punaḥ hasate pādāṁ saṁkocayanti pādārogaḥ bhavati | jvaraṁ ca jāyate mahādāruṇaṁ |

nadyāyāḥ pāraṁ puttalikāṁ kṛtvā raktapuṣpa raktadhvaja rakta tilakaṁ raktopavīt (?) rakta dhūpa rakta dīpa uṣṇodaka sarpaṇirneraka nimbapatra sajjarasa sunirmala ghṛta | etc dhūpa dadyati | pacchīmāyāṁ diśi niśṛtya bali haret catuṣpathe brāhmaṇaṁ āneta vā bhojayet | tataḥ sampadyate sukhaṁ |

\* I have not tried to emend the text as it is too corrupt to be improved upon.

mantra : muñca Kumārāya svāhā |

[IV]. Om Mukhamaṇḍikā nāma graha—caturthe divase caturthe māse caturthe varṣe mukhamaṇḍikā nāma graheṇa grhītasya etad bhavati lakṣaṇam | prathame bhavati jvaram | grīvā śiro atirakta (?) mutrapurīṣaṇa jāyati | muṣṭim bandhayati | bali tasya pravakṣāmi yena muñcati so graha | .. dipārovaṇca mṛttikām grhītvā śuklapuṣpa piṣṭike lepayitvā śuklagandha śukladīpa śukla kṛṣṇopavit macchamāsam jambakti dubaddhamāsa (?) | dhūpapurasarpaṇīrmokaṇca sājīraviṣṭa manuktakeśara śṛgālaviṣṭha vyāghra-śakuni-śṛṅga laśuna sajjam rasa ... | dhūpa | etat uttaradiśe |

muñca muñca Kumārāya svāhā |

[V]. Om Viḍālī nāma graha — pañcame divase pañcame māse pañcame varṣe viḍālī nāma graheṇa grhītasya etad bhavati lakṣaṇam | prathame bhavati jvaram gātraṇca udhariṣeti akāca karoti | kampayanti rudanti atisāram bhavati bhuṅkṣa bhavati ūrdhvaḍṛṣṭa jāyate sehareṇa grhṇanti | bali tasya pravakṣāmi yena muñcati so graha | pītamaya-raktaputtalikām kṛtvā raktapuṣpa raktagandha raktadhūpa rakta.... ka raktacandana raktayajñopavit raktapara āsavaśurā jambubjike macchamāṇsa rudhira nimbapatra bāla upare ghṛta | etc dhūpa | rātrau prathame prahare netradivā nairṭyadiśanalidam | prathame trīṇi dināni caturtha..diśe brāhmaṇa bhojayet anyata vā |

mantra : muñca muñca Kumārāya svāhā |

[VI]. Om Śakuni nāma graha | Ṣaṣṭhe divase ṣaṣṭhe māse ṣaṣṭhe varṣe | Śakuni nāma graheṇa grhīta sma | etad bhavati lakṣaṇam | prathame bhavati jvaram gātra mucṇigayati | ākāśam nirīkṣate | divā-rātrau sūmuṣṭi bandhayanti | uṣṇo bhavati gātra bali tasya | pravakṣyāmi | yena muñcati so graho | śukla puṣpamaya | puttalikā kṛtvā | śukla rakta kṛṣṇa puṣpa dhūpa dīpa gandha svastika dhvaja ha savo | madhyahna | uttarodiśe | paśṛtya | nimanjayet | balipāyasa sarvarasa | bāhu usara gorosa ghṛta etc dhūpa dadyāt | timināni | caturtha divase māse brāhmaṇa vā anyat vā bhojayet | snānodakena nāpayet | tata saṇṇipadyate sukha |

mantra : om muñca Kumārāya svāhā |

[VII]. Śukla kuñ...nāma graha | saptame divase — māse — varṣe | Śukla Kuñcha(?) nāma graheṇa grhītvā | etad bhavati lakṣaṇam | prathama bhavati jvaram | āsana | śayana | grhṇanti | hi kāsa svāsaṇca jāyati | kacchu bhavati | kaṇḍuyate | bahumūtrā | pūrayaṇca jāyate | om bhagamūṣṭi bandhayati | kṛṣṇa prasakṣaṇe | āhāra na grhṇanti | bali tasya pravakṣyāmi | yena muñcati so graha | prṣṭtatila | cūrṇamaya | rakta puttalikā kṛtvā | raktapīta kṛṣṇa śukla svastika | dhvaja | yajñopavit | dīpa | gandha | raktat | jambudji (:) | pāyasa | khapara | maccha-



māsa | surāprṣṭa | śāthyañcane | śvetasarṣapa | nimbapatra | baligoro-  
cana dhūpa | madhyāhna catupathe | mantra |

om muñca kumārāya svāhā |7|

[VIII]. Om Jambuko nāma graha | aṣṭame divase | aṣṭame māse  
aṣṭame varṣe | jambuko nāma graheṇa grhītasya | etad bhavati lakṣa-  
ṇaṇi | prathama bhavati jvaraṇi | gātraṇi saṁkocayanti | śīroruka jaya-  
te | muṣṭi bandhayati | pūṭigandhaṇi pravāyati | te mettabhūto yati |  
bhavati | āhāraṇa grhṇanti | divārātrā dha. .yati cchadanti | bahū-  
mūtrapuriṣaṇa jāyate | hr̥daya kaṁpate | bali tasya pravakṣāmi | jena  
muñca graho | tilacūrṇapiṣṭhamesa | raktaputtalikā kṛtvā | rakta pīta-  
kr̥ṣṇa śukla | svastika | dhvaja kṛṣṇopavīta | dīpa gandha | raktabhakta  
jambudji pāyasa | khapora | macchamāṇsa | śuraprṣṭa | śāka-vyāñjana |  
śveta-sarṣapa | nivapatra | vāsta gorocana | madhyāhna | catupathe |

mantra : om muñca muñca Kumārāya svāhā |8|

[IX]. Om Arajo nāma graha | navame divase—māse—varṣe | ārya-  
ko nāma graheṇa grhītasya | etad bhavati lakṣaṇa | prathame bhavati  
jvaraṇi | munoya vālobhaya jāyate | cchadanti | Śukaro bhavati | svayati  
rodanti | urdhva-prṣṭhpaṇa draśayet | hikkākāraṇi kṛtvā | cadanti suhr-  
sukṣa ? | viklo saṁtāpayanti | puna puna sudre kalpayanti | po. .darogo  
jāyate | divārātro caraṇa bandhayati | bali tasya pravakṣāmi jena muñ-  
cati so graha | Śuklatila | tandulamayaṇi | puttalikā kṛtvā | Śuklapuṣpa |  
śuklagandha | śukla-svastika | śukladīpa | trayodasa | śukladhvaja | tra-  
yodasa | śuklodana | jambudji : (?) | dadhinodana | macchamāṣa | parya-  
ta | acāhne | dakṣiṇāyā diśe | balidāpayet | gugurupyata | ete dhupa  
catupathe | divase | brahmāna bhojayet | mantra |

om muñca muñca svāhā

[X]. Om Revati nāma graha | daśame divase—māse—varṣe | revati  
nāma graheṇa grhītasya | etad bhavati lakṣaṇaṇi | prathama bhavati  
jvaraṇi | kāsa svāsaṇi | kurute | āhāra grhṇanti | tīrjanamakṣirogaṇa  
dhāyate | jihvā danto prawhadati | mūtrā-puriṣaṇa vardhante | bali  
tasya pravakṣāmi jena muñcati so graha | piṣṭatilaṇa lepayitvā | put-  
talikā kṛtvā | śukla pāṣṭa | jambudji | pāyasa śuṣka māsa | trividhayāsa |  
rudhira surā | śukla-prṣṭi | śukla svastike | śukla dhvaja | śuklodana  
nāgakeśara | uśīra | bālasaṇjaraya | lasuna | śrapyanimocaka | sarṣapa  
ghṛta-dhūpa | purvaśyāṇi diśi | nivajayet |

mantra : muñca Kumārāya svāhā 10

[XI]. Om Pilipicchikānāma graha | ekādaśadine—māse—varṣe |  
pilipicchikānāma graheṇa grhītasya | etad bhavati lakṣaṇa | prathama  
bhavati jvara | āhāraṇa grhṇanti | ākrośati | vipracāre | gurudṛṣṭiṇa  
bhidyate | niratikaroti | hastapādan ca kapate | bali tasya pravakṣāmi |  
jena muñcati so graha | māṣapiṣṭha | tilapiṣṭhamaya | raktaputtalika

kṛtvā | navañītaiñca | guḍodana | rakta-jambudji | svastamāya | śurā  
 raktapuṣpa | rakta svastika | raktadhvaṇa | raktadīpa | raktacandana  
 raktayajñopavit | kṣīrasukha saṁpracchādyā | dantivṛkṣa | mārjāra-  
 roma | etad dhūpaṁ | dadāti | ardharātrocaturpatho | madhyāhna tini-  
 dīnāni | bali dadyāt | paścāt bhojayet | smanti kṛtvā |

mantra om muñca muñca Kumārāye svāhā | 11 |

[XII]. Om Sakta (? Skanda) nāme graha | dvādaśe divase-māse-  
 varṣe | skanda nāma grahena grhītasme | etad bhavati lakṣaṇa | pratha-  
 ma bhavati jvaraṁ | nūnocayati | grīvā lalātañca | mukho tasya pravakṣā-  
 mi | jena muñcanti so graha | pā. .trāra—mṛtikā grhītvā | pītaputta-  
 likā kṛtvā kaṁsapātraya pāyasa | kāñjikā. .di | etc dhūpa-rapyasta  
 pītabhagakṣa | svastamāsa | jambudji | pītapuṣpa | pītasvastika | dhakṣa-  
 jajñopavit | pītadīpo | padmabhāñjane dātavyaṁ | ajaśṛṅga rājaśra-  
 maya gośṛṅga | . . . . . | pūrvadakṣiṇa nīṣṭya | bali dātavya

mantra : muñca Kumārāya svāhā | 12

[dvāda]śa-graha śānti. .samīpta

## II

### 囉囉拏說救療小兒疾病經

[RĀVAṆA PROKṬA BĀLACIKITSĀ]

*Lo-fo-nu shuo kieu leao eul tsi ping king.* "Sūtra spoken by Rāvaṇa on curing the children's disease"; [Hob. 1330, Nanjio 882, Canon Buddhique II, p. 589, (n 41). 'Tok. XXVII, 12, pp. 14a-16a].

At the time when Rāvaṇa looked on the earth he found that all children from the first to the twelfth year, when they are still senseless babies and when their spiritual strength<sup>1</sup> is still undeveloped, are possessed by *graha-māṭṛkās*.<sup>2</sup> There are twelve *graha-māṭṛkās* which roam on the earth. At convenient moments in the day and in the night, when the baby is either sleeping, walking or sitting alone, they assume different shapes, frighten the baby and upset his normal condition.<sup>3</sup> They completely take away his energy and so the baby falls sick and dies.

I feel great pity to see it. So I shall now speak of the twelve *graha-māṭṛkās*, the month and year when they possess the child and the disease from which the child suffers. I shall then speak clearly of the great *vidyā*<sup>4</sup> by which it can be cured and the worship and rites to be performed. If anybody listens to what I say and the Vidyādhara-

puruṣa<sup>5</sup> treats the sick child according to my method quite sincerely he will certainly be freed and become hale and hearty.

The names of the twelve *graha-mātrkās* are the following :

1. Mo-tan-li-nan-na (Māṭṛnandā)
2. Su-nan-na (Sunandā)
3. Lo-wei-ti (Revatī)
4. Mu-k'iu-man-ni-kia (Mukhamanḍikā)
5. Wei-na-li (Viḍālī)
6. Shu-kiu-ni (Śakunī)
7. Pu-to-nang (Pūtanā)
8. Shu-shö-kia (Śuṣkā)
9. A-li-ye-kia (Āryakā)
10. Jen-p'o-kia (Jambukā)
11. Pi-li-ping-ts'i-kia (Pilipicchikā)
12. Sö-kien-t'o<sup>6</sup> (Skanda)

These are the twelve *graha-mātrkās* which haunt the child till they get the offering. I shall speak of each of the ways in which the child is seized.

[ I ]. If a child is possessed on the 1st day of the birth, or the first month or year of birth it is the *graha-mātrkā* Māṭṛnandā that possesses him. The child first gets fever, his body becomes thin and reduced. His mind gets confused and the body motionless. He cries and does not take any food.

Then with the *Vidyādhara* *puruṣa* takes the earth from the two banks of a river, makes an image of the child with it and puts it inside a square *maṇḍala*. He makes the child's image face the west, places inside the *maṇḍala* different kinds of incense, flowers, food and drink of white colour, wine, meat etc. and sets up also seven standards and seven lamps. He then takes white mustard seeds, the excrements of wild fox and of cat, Persian incense<sup>7</sup> and snake's skin and by mixing them with a yellow cow's butter makes a sort of incense, burns it and smokes the child's body. Then he takes the leaves of the castor-oil plant and sweet hemp, the leaves of the Pippala tree and Bha-raka<sup>8</sup> herbs ; boils these five herbs in water and washes the child in it by repeating the charm. Then he offers inside the *maṇḍala* food and different other things and recites the following mantra :

- (1) *om namo rūpañāya* (2) *trailokya-vaidala*<sup>9</sup> (?)  
*padāya* (3) *hana vajriṇa* (4) *brahmadaṇḍina* (?)  
 (5) *mārgarūpiṇa* (6) *māṭṛnandā* (7) *bala bala*  
 (8) *śuṣka śuṣka* (9) *muñca muñca* (10) *kumārakaṁ*  
*svāhā.*

After reciting the mantra he goes outside the city and facing the

east at midday makes an offering to the *graha-mātrkā* Mātṛnandā. He then throws on all sides the food, incense, flowers and other things used for the offering.

[II]. If a child is possessed on the 2nd day of his birth, or the 2nd month or year it is the *graha-mātrkā* Sunandā that possesses him. The child first gets fever, loses all power of recognition, closes his eyes, and his hands and feet get cramped. He gets pain in the stomach, vomits and develops breathing difficulty. Then the *Vidyādhara-puruṣa* makes a small image of the child with one seer of powdered rice. He places it inside the maṇḍala facing the west and then offers within the maṇḍala different kinds of excellent incense, food and drink, wine and flesh etc. Then he sets up four white standards and four white lamps. Then taking the Persian incense, garlic, snake's skin, white mustard seed, and cat's excrements, he mixes them with butter, burns them and smokes the child's body. Thereupon he washes the child's body, as before, in the water of five herbs and recites the *mantra*. He offers as before food and other kinds of things in the maṇḍala reciting the following *mantra* :

- (1) *om namo rāvaṇāya* (2) *trailokya-vaidula(?)*  
*padāya* (3) *candrahāsadhārīṇī* (4) *jvalita hastāya*  
 (6) *daha daha* (7) *triśūlinam duṣṭagrahā*  
 (8) *nikṛtaya nikṛtaya* (9) *tuṣya tuṣya*  
 (10) *hana hana* (11) *Sunandā muñca muñca*  
 (12) *kumārakaṁ svāhā*.

After reciting the *mantra* in this way he goes out of the city and in the afternoon facing the west gives an offering to the *graha-mātrkā* Sunandā and then throws away the food, flower, incense and other things on all sides. The child then gets free from disease.

[III]. If a child falls ill on the 3rd day of his birth or in the third month or year it is the *graha-mātrkā* Revatī that possesses him. The child suddenly gets frightened and cries. He has pain in his body ; he gets fever, and his head and face shake and he looks at his own body. The body becomes gradually weak and thin. He cannot eat and gradually withers. The *Vidyādhara-puruṣa* then makes an offering of different kinds of excellent flesh, food, raw meat, raw fish, wine etc., and places 8 standards of red colour and 8 lamps. He then takes the leaf of the *wei-ki*<sup>10</sup> tree, Persian incense, snake's skin, garlic, cat's excrements, and white mustard, mixes them with butter, burns them and smokes the child's body. Then he washes the child's body in the water of 5 herbs spoken of before, recites the *mantra* and makes the

offering of food and various other things inside the *maṇḍala* in the manner stated above. He recites the following *mantra* :

- (1) *om namo rāvaṇāya* (2) *daśavadana*  
 (3) *candrahāsāya* (4) *prajvalita hastāya* (5) *hana*  
*hana* (6) *daha daha* (7) *mardaya mardaya*  
 (9) *muñcaya muñcaya svāhā*.

Then after reciting this *mantra* he goes out of the city, in the afternoon facing the north worships the *graha-mātṛkā* Revatī and then throws away the food and other kinds of things on all sides. The child is then cured.

[IV]. If a child is possessed on the 4th day, of his birth, or the 4th month or year it is the *graha-mātṛkā* Mukhamanḍikā that possesses him. The child at first gets fever, vomits out phlegm, the body shakes and the head stoops down. He scratches the eyes with his two hands and looks around as if seeing somebody. He does not take any food and drink and passes urine and loose stool. The *Vidyādhara* then takes the earth from the two banks of a river, makes an image of the sick child with it, and places it inside the *maṇḍala* facing the west. He then offers various kinds of incense, flower, raw and cooked meat, food, wine, fruits etc. and sets up 4 red standards 4 lamps and 4 cups. He then takes the *tila* seeds, serpent's skin, cat's excrements, cow's horns, tiger's claw, mustard seeds etc., burns them together and smokes the child's body. He then washes the child's body in the water of five herbs mentioned before, recites the *mantra* and makes offering of food and other things inside the *maṇḍala*. Then he recites the following *mantra* :

- (1) *om namo* (2) *Brahmā-Viṣṇu<sup>11</sup>-Maheśvara*  
 (3) *Skanda Hutāśana* (4) *Mukhamanḍikā*  
 (5) *hana hana* (6) *mardaya mardaya* (7) *nikṛtaya*  
 (8) *nikṛtaya* (9) *khūhi khūhi* (10) *Bhagavati*  
 (11) *Mukhamanḍikā svāhā*.

After reciting this *mantra* he goes out of the town and in the afternoon facing the south worships the *graha-mātṛkā* Mukhamanḍikā and throws the food and other things of the offering on all sides. The child then gets cured.

[V]. If a child is possessed on the 5th day of the birth or the 5th month or year then it is the *graha-mātṛkā* Viḍālīkā that possesses him. The child first becomes senseless, and then loses his temper. He gets fever, cough, vomits badly, gets eruptions on the body like chicken pox, his looks become vacant and he does not like to eat and drink. He gradually becomes weak and thin, his belly shrinks inside and becomes hardly visible. The *Vidyādhara* gives offering of

white food and drink, wine, meat etc., sets up five white standards on the seats, five lamps and five cups, offers various kinds of incense, flower etc. Thereupon he takes Persian incense, garlic, serpent's skin, cat's excrements, white mustard seeds etc., mixes them with butter, burns it and smokes the child's body. Then he washes the child in the water of 5 herbs mentioned before. He then recites the *mantra* and gives offering of food and other things inside the *maṇḍala*. He recites the following *mantra* :

- (1) *om namo rāvaṇāya* (2) *trailokya vaidalapadāya* (?)  
 (3) *viḍālikā viḍālikā mokṣaya* (4) *mokṣaya* (5) *hana*  
*hana* (6) *candrahāsinām* (7) *muñca muñca*  
 (8) *viḍālikā svāhā*.

After reciting the *mantra* he goes out of the town and in midday facing the west worships the *graha-mātrkā* Viḍālikā. He then throws on all sides the food and other things of the offering. The child then gets cured.

[VI]. If a child is possessed on the 6th day of the birth or the 6th month or year then it is the *graha-mātrkā* Śakunī that possesses him. The child first gets fever, sometimes laughs and sometimes cries ; his body shakes and emits bad smell. He does not like to eat, and gets thin. Then the *Vidyādhara* makes a small image of the sick child with one seer of flour and puts it inside the *maṇḍala* facing the west. He then offers different kinds of incense, flower, food and drink, wine and meat, *pāyasa* etc. He then sets up 4 white standards, 4 lamps and cups. He then takes Persian incense, garlic, serpent's skin, cat's excrements and white mustard seeds, mixes them with butter, burns it and smokes the child. He then washes the child in the water of 5 herbs already mentioned, recites the *mantra* and offers inside the *maṇḍala* food and various other things. He recites the following *mantra* :

- (1) *om namo bhagavate* (2) *Rāvaṇāya*  
 (3) *laṅkeśvarāya* (4) *prīta-vaidrapadāya*  
 (5) *vajriṇā hana hana* (6) *Śakunī muñca muñca*  
 (7) *kumārakaṇi svāhā*.

After reciting this *mantra* he goes outside the town and in the afternoon facing the south worships the *graha-mātrkā* Śakunī and then throws away on all sides the food and other kinds of things used as offering. The child thus gets cured.

[VII]. If a child is possessed on the 7th day of the birth or 7th month or year then it is the *graha-mātrkā* Pūtānā that possesses him. The child gets fever, has pain in the body and passes stool and urine frequently. His hands get clasped. He does not like to take food

and drink and becomes gradually weak. The *Vidyādhara* makes the image of the sick child with *ki-yang* grass, places it inside the *maṇḍala* facing the west. He then offers various kinds of red flowers, red food and drink, wine and food etc. He then sets up 8 white standards, 8 white lamps and 8 cups. He then takes Persian incense, serpent's skin, the hair of a dead body, tiger's claws, leaves of a Pin-mo tree, cat's excrements, white mustard seed and butter, mixes them together burns them and smokes the child's body. The child is then washed in the water of 5 herbs mentioned above. He then recites the *mantra* and offers inside the *maṇḍala* food and other things. He recites the following *mantra* :

- (1) *om namo bhagavate* (2) *Rāvaṇāya* (3) *laṅkeśvarāya*  
 (4) *prīta-vaidrapadāya* (5) *kumāragraha* (6) *nikṛta*  
 (7) *hana hana* (8) *turna turna svāhā*

After reciting this *mantra* he goes out of the town, in the afternoon facing the west worships the *graha-mātṛkā* Pūtanā, and then throws away on all sides the food and other things used as offering. The child then gets cured.

[VIII]. If a child is possessed on the 8th day of the birth or the 8th month or year it is the *graha-mātṛkā* Śuṣkā that possesses him. The child first gets fever, and delirium, gets pain in the body ; his eyes cannot see things ; his head stoops down and he loses strength. His body emits a bad smell and he does not like to take food and drink. The *Vidyādhara* then makes the head of a black goat with one seer of flour and places it inside the *maṇḍala* facing the west. He then offers various kinds of incense, flowers, *pāyasa*, excellent food and drink, wine and meat etc. He sets up 5 white standards, 5 lamps and 5 cups. He then takes Persian incense, sa-jo-la-sa (*sarjarasa*?) serpent's skin, garlic, white mustard seed, cat's excrements, butter etc., mixes them together, burns them in the fire and smokes the child's body. He then washes the child in the water of 5 herbs mentioned above. After that he recites the *mantra* and worships as before in the *maṇḍala* with food and various other things. He recites the following *mantra* :

- (1) *om namo Rāvaṇāya* (2) *trailokya vaidrapadāya*  
 (3) *jvala jvala* (4) *prajvala prajvala* (5) *hana hana*  
 (6) *hum phaṭ svāhā*.

After reciting this *mantra* he goes out of the city and in the afternoon facing the south worships the *graha-mātṛkā* Śuṣkā and then throws away on all sides the food and other things of the offering. The child gets cured.

[IX]. If a child is possessed on the 9th day of his birth, or the 9th month or 9th year it is the *graha-mātṛkā* Āryakā that possesses

him. The child gets fever, his body shakes and he cries. He feels great pain in the whole body, white foam comes out from his mouth and he continually vomits. His head stoops down and he looks sideways. He does not like to take food and drink. The *Vidyādhara-puruṣa* makes the head of a white goat with a seer of flour, paints with white incense paint and places the head inside the *maṇḍala* facing the west. He then prepares various kinds of incense, flower, excellent food and drink, wine and meat etc. He sets up 4 white standards, 4 lamps and 4 cups. He then burns the snake's skin and smokes the child's body. After that the child is washed in the water of 5 herbs mentioned above. After that he recites the mantra and worships in the *maṇḍala* with food and other things. He recites the following mantra :

- (1) *om namo laṅkādevatāya* (2) *laṅkeśvarāya*  
 (3) *hana hana* (4) *paca paca* (5) *hum hum*  
 (6) *phaṭ phaṭ svāhā*.

After reciting this *mantra* he goes outside the city and in the afternoon facing the north worships the *graha-mātṛkā* Āryakā and throws on all sides the food and other things of the offering. The child then gets cured.

[X]. If a child is possessed on the 10th day of his birth or in the 10th month or 10th year it is the *graha-mātṛkā* Jambukā that possesses him. The child first gets fever, makes awful sound and vomits continually. He passes excessive stool and urine, gets pain in his eyes and teeth and does not wish to eat and drink. The *Vidyādhara-puruṣa* then makes the image of the sick child with earth taken from the two banks of a river, paints the image with *niu huang*<sup>12</sup> paints and places it inside a *maṇḍala* facing the west. He then prepares various kinds of incense, flower, excellent food and drink, wine, meat etc. He then takes Persian incense, cock's feathers, cow's horn, snake's skin, human bone, cat's excrements, white mustard seed, butter, burns them together in the fire and smokes the child. The child is then washed in the water of 5 herbs mentioned above. Then reciting the *mantra* he worships inside the *maṇḍala* with food and other things. He recites the following *mantra* :

- (1) *om namo bhagavate* (2) *po-su-ni-pa-ye*  
 (3) *Rāvaṇa pi-mo-lu-fan ye*<sup>13</sup> (4) *hana hana*  
 (5) *hum phaṭ svāhā*.

After reciting this *mantra* he goes out of the city, and in the afternoon facing the south worships the *graha-mātṛkā* Jambukā. He then throws away the food and other things of the offering on all sides. The child thus gets cured.



[XI]. If a child is possessed on the 11th day of his birth or in the 11th month or 11th year then it is the *graha-mātṛkā* Picchikā that possesses him. The child first gets fever, his body shakes and all the joints of his fingers get pain. The child cries and vomits and does not like to take any food or drink, his looks become vacant and he gets thin and reduced. The *Vidyādhara* makes the image of the sick child with one seer of powdered beans, paints it with red incense and places the image within the *maṇḍala* with its face to the west. He then prepares various kinds of incense, flower, food and drink, wine and meat etc., and 25 pieces of cloth and sets up 25 standards and 15 lamps. He then takes the excrements of pigeon, feathers of pigeon, dead man's hairs, goat's horns, cat's excrements, white mustard seed, garlic and butter. He mixes them together, burns them and smokes the child's body. He then washes the child in the water of 5 herbs mentioned above, recites the *mantra* and worships as before inside the *maṇḍala* with food and other things. He recites the following *mantra* :

- (1) *om namo bhagavate* (2) *Rāvaṇāya* (3) *candrahāsa*  
 (4) *vyāghrahaṣṭāya* (5) *jvala jvala* (6) *prajvala*  
*prajvala* (7) *hana hana* (8) *duṣṭa graha svāhā*.

After reciting this *mantra* he goes outside the city and in the afternoon with face towards the west worships the *graha-mātṛkā* Picchikā and then throws on all sides the food and other things of the offering. The child thus gets cured.

[XII]. If a child is possessed in the 12th day of the birth, or in the 12th month or 12th year it is the *graha-mātṛkā* Skanda that possesses him. The child first gets fever, looks angrily at men, his hands and feet get paralysed : he vomits and gets gradually reduced. He does not like to take food and drink. The *Vidyādhara* makes an image of the sick child with wheat, puts it inside a *maṇḍala* with its face to the west. He then prepares different kinds of incense, flower, excellent food and drink, wine and meat etc. He then sets up 8 red standards, 8 lamps and 4 cups. He then takes the horns, white mustard seed, Persian incense, garlic, snake's skin, cat's excrements, butter etc., mixes them up, burns them and smokes the child. He then washes the child in the water of 5 herbs already mentioned. He then recites the *mantra* and worships as before in the *maṇḍala* with food and various other things. He recites the following *mantra* :

- (1) *om namo Rāvaṇāya* (2) *tripura-* (3) *vināśanāya*  
 (4) *daṁṣṭrā taṅkarāla-* (5) *pāśurāya* (6) *candrahāsamca*  
 (7) *hana hana* (8) *marda marda* (9) *daṇḍinaṁ*

(10) *vaidrapa(dā)ya* (11) *vaidrapa(dā)ya* (12) *skanda*  
 (13) *muñca muñca* (14) *kumārakaṁ* (15) *hum*  
*hum* (16) *phaṭ svāhā*.

After reciting this *mantra* he goes outside the town and in the afternoon with face towards the east worships the *grahamātrkā* Skanda and then throws on all sides the food and other things used as offering. The child then gets cured.

When Rāvaṇa pronounced this "Sūtra on curing the diseases of children" all became very happy.

### NOTES

1. In Chinese the word is *Shen* which means spirit, soul etc. I have translated it as "spiritual strength."

2. In Chinese *Yao mu Kuei*—"Star mother demoness."

3. In Chinese the word is *tch'ang* which means "constant, law, ordinary etc." I have translated it as 'normal condition.'

4. *Vidyā*—*ta ming*<sup>2</sup>, which is the regular translation of *dhāraṇī* "charm".

5. *Vidyādhara*—in Chinese there is *Tche ming jen*<sup>3</sup>, *Tche ming* is the regular Chinese translation of *dhāraṇī*, *vidyā* etc. The expression therefore literally means *Vidyādhara*. It shows that there was a class of men who specialised in such things. There is reference to *Vidyāpuruṣa* in the *Guhya*samājatantra (Gaekwad Series, pp. 135, 150, 153, 157), but in that text *Vidyāpuruṣa* has not apparently any such significance. But in the *Mahapratisarā* (which is one of the five texts of the *Pañcarakṣā*) there are several references to *Vidyāvādika*, *Vādika* etc. It is said that on one occasion when the son of a rich merchant of Śūrparaka was bitten by a snake many *Vidyāvādikas* or *Vādikas* were brought to cure him. *Vādika* is from the root *vād-*, and means one who recites: hence *vidyāvādika* is a charmer. The *Mahapratisarā* text clearly shows that there was a class of charmers in ancient times who specialised in methods of magical treatment. They were evidently known as *Vidyāvādika*, *Vidyāpuruṣa*, *Vidyādhara* or simply as *Vādika*. It is interesting to note that a class of gipsies in India are still supposed to be clever in such treatment and they are commonly known as *Vādiā* (< *Vādikā*?).

( 1 ) 囉母鬼

( 2 ) 大明

( 3 ) 持明人

6. Sö-kien-t'o—but in Sect. XII. it is Sö+kien-t'o=Skanda.

7. Persian incense—in Chinese—*ngan si hsiang*<sup>1</sup>: *Ngan-si* is the ancient Chinese name of Persia. *Ngan si hsiang* was used in Chinese to mean two different aromatics—one an ancient Iranian product which is vaguely known and the other the benjoin. In the Chinese Sanskrit dictionary called *Fang yi ming yi tsi* it is used for Sanskrit *guggula* "bdellion". Cf. Laufer—*Sino-Iranica*, pp. 466-67; Pelliot—*T'oung Pao* 1912, p. 480. Here it means *guggula*; in the corresponding Sanskrit text also we have the same word. Cf. Section 7 of Filliozat's text.

8. In Chinese transcription *fu-lo-kia*<sup>2</sup>, which corresponds to *bharaka*, *bhalaka*. Is it the same as *Bhallātaka*?

9. *Vaidala*, in Chinese *wei-na-lo*<sup>3</sup>, it occurs in the same form in § II, V but in § VI, VII, VIII and XII as *wei-na+lo*=*Vaidra*. I think this is a mistake for *Vaidya*.

10. *Wei-ki*<sup>4</sup>—Filliozat's text: *Śivanīrmālyaguggulusarṣapanimbapatra*: So it is not clear which tree is meant by *wei-ki*.

11. Viṣṇu—the transcription in Chinese is wrong. It is given as *Wei-po+nu*=*Vipnu*.

12. *Niu Huang*<sup>5</sup>—I think this is a mistake for *niu-sen* — Skt. *gomaya*.

13. *po su-ni-pa-ye* = *Vasudīpāya*?; *pi-mo-lu-fan-ye* = *Vimalavandya*?

( 1 ) 安息香

( 2 ) 縛囉迦

( 3 ) 尾捺囉

( 4 ) 尾螺

( 5 ) 牛黃

## FIVE HĪNAJĀTIS

By ATINDRA NATH BOSE

Side by side with the four *varṇas* constituting the ancient Indian society, the social physiognomy of ancient India presents a host of despised castes and professions represented by the aboriginal races going under the general brand of *hīnajāti*. The Pali literature picks up five of these parian castes for constant mention. The Suttavibhaṅga Pācittiya enumerates them in contradistinction from the privileged estates of Brāhmaṇa and Khattiya : *hīna nāma jāti caṇḍālajāti veṇajāti nesāḍajāti rathakārajāti pukkusajāti esa hīna nāma jāti* (ii. 2. 1). These five appear associated in a conglomerate class of outcastes also in other passages (Mn. 93, 96, 129 ; An. II. 85 ; Sn. I. 93 ; Pug. IV. 19).

### I. The Caṇḍāla

In Indian tradition the *caṇḍāla* has always been the byword for subjection and contempt. The earliest references are seen in the Yajurveda Saṃhitās and in the Upaniṣads. They show clearly that the *caṇḍāla* was a degraded caste but yield no particulars.<sup>1</sup> Fick suggests that they were originally a tribal body.<sup>2</sup> After the first Aryan invasion the conquerors and the conquered were divided into two broad social categories—*āryavarṇa* and *dāsavarṇa*. Gradually the *dāsavarṇa* or the defeated aboriginals yielded to numerous sub-castes or classes in a social hierarchy taking positions according to their loyalty to the victors and to the adoption of the foreign culture. Those who remained outside the Aryan social scheme were reduced to a medley of pariahs and under-dogs. Among these outcastes some were ethnic groups, held together by a common race (*hīnajāti*) humiliated for their despicable callings. The *caṇḍāla* was at the bottom of the ladder. The Brāhmaṇical theory that he is the issue of a Śūdra husband and a Brāhmaṇa wife reveals only a jealous attempt to preserve the purity of the stock against the growing menace of *pratiloma* marriage.

1. Ch. Up., V. 107 ; 24. 4 ; Aśv. Gr. S., iv. 1 Sāh. Gr. S., ii. 12 ; vi. 1 etc.; Vājasaneyi Saṃh., xxx. 21 ; Tait. Br. iii. 4. 17. 1 ; Br. Up., iv. I. 22.

2. Die Sociale Gliederung, pp. 204 ff.

If the children of these marriages did really sink down to the status of *caṇḍālas*, certainly that does not explain the origin of the caste and Fick's suggestion seems to be substantially correct.

That the *caṇḍālas* were aboriginal local tribes with their peculiar trades and professions and social customs crystallised later into a caste or community under the rigid isolation forced upon them by the Aryan or Aryanised society is gathered from the bulk of Pali evidences as well as Epic literature.

The Rāmāyaṇa depicts the *caṇḍāla* in the following strain : "with blue complexion, blue robes, dishevelled locks, garlanded from the crematory, anointed with ashes from the same and adorned with iron ornaments."

*nīlavastradhara nīlaḥ paṇṣo dhvastamūrdhajaḥ*  
*cityamālyāṅgarāgaśca āyasābharāṇo bhavat* (I. 58. 10ff.).

Manu also enjoins that the dress of the *caṇḍāla* should consist of the garments of the dead and that black iron should be their ornament (X. 51).

In the Mātāṅga Jātaka he is described as "clad in a bad undergarment of red colour round which a belt is tied ; above this a dirty upper garment, an earthen pot in hand"—*rattadupattam nivāsetvā kāyabandhanam bandhitvā paṇṣukulasamghātim pāruṇitvā mattikāpattam ādāya*..... (IV. 379).

Manu also adds that he is "distinguished by marks at the king's command" (X. 55). Medhātithi understands these as external marks such as "axes, adzes and so forth used for executing criminals and carried on the shoulder." Govindarāja explains these as "sticks and so forth", Nārāyaṇa as "iron ornaments and peacock feathers and the like." But the more plausible is the explanation of Rāghavānanda, that they are to be branded on the forehead and on other parts of the body.

To the *caṇḍālas* were assigned certain despised professions befitting their rank which they had to pursue hereditarily. The Arthaśāstra fixes their habitat beside the crematorium (*pāśandacaṇḍālānām śmaśānānte vāsaḥ*, II. 4). Manu (X. 51) and Viṣṇu (XVI. 14) ordain that their clothes must be the mantles of the deceased. The occupation readily suggested by these injunctions is that of burning dead bodies. This was presumably not an independent profession but a compulsive service imposed on them by the state or society at large. Manu says : "In the daytime they may do the work assigned to them by order of the king ; the corpse of anybody who has no relations they must carry out of the house—such is the standing rule" (X. 55). According to the commentary on the Silavimamsa Jātaka, a *caṇḍāla*

is engaged in removing corpses (*chavachaḍḍaka caṇḍāla*, III. 195). He is certainly the corpse-burner (*chavadāhaka*) who tops the list of despised professions in the *Milinda* (p. 331).

The cremation of unclaimed dead bodies and those of criminals seems to be an associate function of the equally disreputable job of an executioner. *Manu* says: "Criminals they shall kill according to the law, by order of the king; the clothes of the criminal, their beds or other ornamental articles they may keep to themselves" (X. 56). *Viṣṇu* says: "A *caṇḍāla* must live by executing criminals sentenced to death" (XVI. 11). In the *Anuśāsanaparva* his duty is that of the public executioner (48. 11).<sup>3</sup> In the *Arthaśāstra* it is laid down that a *caṇḍāla* is to function for whipping a transgressing woman in the centre of the village (III. 3) and for dragging an attempting suicide with a rope along the public road (IV. 7). The idea of employing a *caṇḍāla* for these purposes was to add an insult to the injury inflicted on the culprit.

The *caṇḍāla* is sometimes seen also in the despised rôle of a hunter. In the *Śāntiparva* of the *Mahābhārata* he is an animal-trapper in a forest (138. 23) and pursues his trade with a pack of dogs (138. 114). In the *Arthaśāstra* occurs a parable which conveys that a *caṇḍāla* usually profits by a fight between a dog and a pig (IX. 2). *Manu* assigns only dogs and donkeys as their wealth (X. 51). The profession of hunting is assigned to the caste known as *niṣāda* and the *caṇḍāla* is not commonly seen in this rôle. This may have been an occasional or an additional calling. Or the term *caṇḍāla* may have been used in a more generic sense covering all pariahs and out-castes among whom the *niṣāda* or animal-killer was one. This is the more probable explanation as we come across other occupations of a *caṇḍāla* which do not fit in with a corpse-carrier or an executioner. One is found to earn living by selling fruits out of season but it should be remembered that he is a *Bodhisatta* (*Jāt.* IV. 200). Another is found mending old things (*jīṇapatisamkhāraṇaṃ karoti*, *Jāt.* V. 429). The phrase '*mūlavayasanaṃvṛttinām*' used in *Manu* with reference to the occupation of a *Sopāka Caṇḍāla* is explained by *Nārāyaṇa* and *Nandana* as those who live by digging roots, i.e., in order to sell them as medicine. In a *Jātaka* story a king is reduced to *Caṇḍālāhood*

3. Cf. a *Jātaka* sketch of the *coraghātaka*: *attano carittena pharasuñca kaṇṭakakasañca ādāya kāsāyanivāsino rattamālādharo* (III. 41, 179). The *caṇḍāla* customarily wears a garland of red flowers (*Jāt.* III. 30). Their dress and ornaments presumably were not uniform since, according to the *Smṛtis*, they had them as they found in the corpses brought for cremation.

under the fury of his oppressed subjects (VI. 156). Evidently not the *caṇḍāla* caste but the general status of outcastes or degraded castes is meant.

The analysis of the phrase *caṇḍāla-vamśa-dhōpanam* which occurs in the Dīghanikāya (I. i. 13) and in the Citta-sambhūta Jātaka is illuminating. Rhys Davids renders it as 'acrobatic feats by *caṇḍālas*', Rouse as 'the art of sweeping in the *caṇḍāla* breed' and Fick as 'the art of blowing a *Caṇḍāla* flute'. The annotation of Buddhaghosa in the Sumaṅgalavilāsinī clarifies the cryptic expression. He treats the phrase as a compound of three separate things. '*Caṇḍāla*' means '*ayogūla-kīlā*',—a trick with an iron ball (may be the feat of putting the shot), '*vamśa*' is '*venum ussāpetvā kīlanam*',—a trick with a bamboo pole (may be the pole-vault, climbing the greased pole or poisoning the pole), '*dhōpanam*' is '*aṭṭhidhovanam*.' Here the scholiast refers to a barbarian custom in a certain *janapada* where corpses were not burnt but buried and when decomposed, were dug out; the bones were washed and buried again with balms. The funeral rite was accompanied with drinking bouts and gusty wailings.—He quotes a passage from the Aṅguttaranikāya (V. 216) where the custom called '*dhōpanam*' is said to be prevailing in Southern India and hilariously observed with feasting, dancing, singing and merrymaking. He adds significantly "*Idha ekacce pana indajālana aṭṭhidhovanam dhōpanam ti vadanti.*"<sup>4</sup>

Two things are apparent. Firstly, the custom certainly belongs to some aboriginal tribes particularly inhabiting southern India and presumably to the *caṇḍālas*. Secondly, '*dhōpanam*' is a conjuring trick of bone-washing also presumably practised by *caṇḍālas*. The ball-trick and the pole-trick may be acrobatic feats or sleights of hand. What is gathered is that the *caṇḍālas* practised various sorts of magical and acrobatic feats peculiar to their breed (*caṇḍālakammam*). They displayed their art in public shows or on roadside which brought a few coppers from sight-seers.

The reference in the Aṅguttaranikāya to the custom prevailing in southern India weakens the comment of Fick that "the *caṇḍāla* village placed in the Citta-Sambhūta Jātaka in front of the gate of Ujjein and thus to the west of India, may have probably existed only in the imagination of the narrator who carried the narrow conditions of this home over the whole of India."<sup>5</sup> There is nothing to show conclusively that the *caṇḍāla* caste was peculiar to the social organisation in Magadha and Vāṅga because their modern descendants are

4. Barua, Barhut, I.

5. Op. Cit. p. 204.

mostly located there and because Magadha and Videha are referred to by Manu as the land of mixed castes.

The *caṇḍāla* had to remain in strict isolation from civilized contact and at the bottom of the uncivilised society. "But (unlike all other castes) the residences of the *caṇḍālas* should be outside the village"—so ordains Manu (X. 51). "Caṇḍālas must live out of the town.....In this their condition is different (from and lower than that of the other mixed castes)"—so lays down Viṣṇu (XVI. 14). "Endued with a dreadful disposition, he must live in the outskirts of cities and towns" (Mbh. XIII. 48. 1). In the Jātakas the *caṇḍālas* are always seen living outside the city gate (*bahinagare*, IV. 376, 390; VI. 156), in villages and settlements entirely by themselves (*mahācaṇḍālagāma*, IV. 200, *caṇḍālagāma*, IV. 376, 390; *caṇḍālavāṭakaṃ*, VI. 156). Fahien and Yuan Chwang corroborate the fact that they lived outside the city in their own villages. The latter adds that when they at all entered the municipal area, they had to travel along the left side of the road.

Elaborate rules of contact fortified the social partition. First and foremost, the rules of the table. The Brāhmaṇas of Kāśī who were thrown out of caste "having been made to taste the leavings of a Caṇḍāla" (*caṇḍālucchiṭṭhabhatta*) for their life, retired in shame to the kingdom of Mejjha and lived with the king of that country (Jāt. IV. 376 ff.). In Buddha's own words, food earned by unlawful means "is like the leavings of a *caṇḍāla*"; the following Jātaka story narrates how a Brāhmaṇa takes the leavings of a *Caṇḍāla* under pressure of hunger but later awakes to the disgrace done to his birth, clan and family, vomits out the food with blood and retires into the forest to die forlorn (II. 82ff.). The Smṛtis prohibit touching a *caṇḍāla* by higher castes for which purification by bathing is necessary (Āpas. II. i. 2. 8; Gaut. XIV. 30; Manu V. 85; Vāś XIII. 33; Yāj. III. 30). Hence the wind and water that carry this contact is equally loathsome. Setaketu, the proud Brāhmaṇa pupil, loathes the wind that brushes the body of a fellow *caṇḍāla* pupil (Jāt. III. 233). Another Brāhmaṇa in whose locks gets stuck a tooth-stick nibbled by a *caṇḍāla* and carried by river current, reviles and curses the culprit and compels him to move and live down-stream (IV. 376ff.; cf. Vin. IV. 203ff.). A parable in the Arthaśāstra shows that "a reservoir of water belonging to *caṇḍālas* is serviceable only to *caṇḍālas*, but not to others...". *Yathā caṇḍālodapānaś caṇḍālānāmevopabhogyo nānyeṣām evaṃ ayam* (I. 14). Even sight of and speech to them impurify (Manu, III. 239). Āpastamba says: "As it is sinful to touch a *caṇḍāla* so it is to speak to him or to look at him" (II. 1. 2. 8.). A merchant's daughter and a chaplain's daughter wash their eyes with scented water and turn their back at the sight of



*caṇḍālas* which brings bad luck. The two creatures are beaten to jelly by the people who forfeited the expected distribution of free food and liquor due to the evil omen (IV. 376 ff., 390 ff.).

It is sickening to narrate the multifarious disabilities imposed upon these people to square up their isolation and to perpetuate their subjection and humiliation. "A man who fulfils a religious duty should not seek intercourse with them; their business they should conduct among themselves and their marriages they must contract with their equals. Their food must be given them by somebody other than an Aryan in a broken vessel; at night they shall not go about in the villages or in the towns" (Manu, X. 52 f.). A student of the Vedas shall not study in a village where *caṇḍālas* live nor if a *caṇḍāla* is within sight (Āpas. I. 3. 9. 15-17; Gaut. XVI. 19; Vāś. XIII. 11). "If (while reciting the Veda) they hear noises made by outcastes or *caṇḍālas* they shall sit silent and fasting during three days" (Vāś. XXIII. 34). They are debarred from standing as witness except in case of transactions in their own community (Arth. III. 11; Manu, VIII. 64; Nār. I. 155). For touching one of a higher order they are to be fined (Arth. III. 19; cf. III. 20). For stealing an animal of a *caṇḍāla* the thief is fined half of the standing rate (IV. 10).

Nothing demonstrates more sharply the social status of a *caṇḍāla* than his very frequent classification with a dog (Āpas. II. 4. 9. 5; Gaut. XVII. 24; Vāś. XXIII. 33). A householder is to practise charity by throwing food outside the house on the ground for dogs, *caṇḍālas*, outcastes and crows (Vāś. XI. 9; Manu, III. 92). In the Mahābhārata he stands in the company of cows, elephants, dogs, ravens and vultures (VI. 29. 13; XII. 207. 42ff.). Manu extends the list to pig, cock, ass, camel and all and sundry animals (III. 239; XII. 52). "Raven of ill omen" is the common form of address to him (Jāt. III. 233, IV. 388). But he was not really as well off as these companions. The wind and sight of these animals did not pollute an Ārya, nor were the sacred Vedas profaned at their hearing or by their presence. The *caṇḍāla* was lower than the dog and the crow. In the Smṛti literature the *caṇḍāla* is the lowest of all mortals (Manu, X. 16, 26).

In popular literature "contemptuous as a *caṇḍāla*" has become a proverbial expression. Into the mouth of a young lioness to whom a jackal had made a proposal of marriage the words are put—"This jackal is considered low and wretched among the fourfooted animals, similar to a *caṇḍāla* (*hīno patikuṭṭho caṇḍālasadiso*, Jāt. II. 6). A Brāhmaṇa designates his adulterous wife as *pāpacāṇḍālī* (IV. 246).

The story of the Citta-Sambhūta Jātaka shows with pathetic clarity the mournful lot of these pariahs. Two *caṇḍāla* brothers living outside the city, display their simple arts outside the city gates.

By accident and no fault of their own their loathsome sight is caught by two conceited women. They are mobbed almost to death. The thought comes to them "all this misery has come upon us because of our birth ; we are not allowed to pursue our own trade" (*caṇḍālakammaṃ kātuṃ na sakkhissāma*). They conceal their birth and go to study at Taxila. Here again they are exposed by their dialect (*caṇḍālabhāsā*) and driven out with blows for their audacity of intruding into the knowledge which was the preserve of the upper classes. The story also demonstrates how complete the isolation was—the isolation imposed by all the ingenuity that the priesthood was capable of—"that in the midst of a population speaking an Aryan dialect they preserved even in linguistic matters their racial individuality."<sup>6</sup>

Was there no mitigation for the *caṇḍāla*? It is admitted that the Śāstra rules do not reflect truly the actual conditions of society. But in this respect at least the popular stories of the Jātakas show that reality did not go very far from priestly theory. The few Jātaka stories that afford casual relief should be taken with some discount, for the subject therein is always a Bodhisatta. In one case he dares to kick a fellow Brāhmaṇa pupil who is defeated in an academic dispute and the action is condoned by the teacher (III. 233). We have seen that the *caṇḍāla* was not at all admitted to the courses of learning. Elsewhere he is served by a Brāhmaṇa for a charm and the Bodhisatta motive comes out in the open when the latter loses it from denying his teacher out of shame. The fitting conclusion is the sermon by a king that a teacher is always to be respected be he a Sudda, Caṇḍāla or Pukkusa (IV. 200 ff.). In another story a *caṇḍāla* who is maltreated by a merchant's daughter, lies down in fast for six days at the merchant's doors, obtains the girl for wife and compels her to carry him on her back to his village (IV. 376).<sup>7</sup> All available testimony goes to show that the fellow would have been flayed or lynched no less than a Negro who would show the same temerity with a Yankee woman a few years ago.

In a discourse to the Brāhmaṇa Aggikabhāradvāja Gotama cites the instance of Mātanga,<sup>8</sup> a *caṇḍāla* who reached the highest fame and went to the Brahmaloḥa while many high-bred Brāhmaṇas owing to their sinful deeds are blamed in this world and go to hell after death. Hence not by birth is one a pariah or a Brāhmaṇa, by act one is a pariah or a Brāhmaṇa (Suttanipāta, verses, 138. 142).

6. Fick, Op. Cit. p. 205.

7. The apology is expressly given,—“For the resolve of such a man (Bodhisatta)—so it is said, always succeeds.”

8. Cf. Jātaka IV. 376 ff.

*Na jaccā vasalo hoti*  
*Na jaccā hoti brāhmaṇo*  
*Kammanā vasalo hoti*  
*Kammanā hoti brāhmaṇo.*

But why had he to fall back upon the next world to vouchsafe reward or punishment? The brutal level to which these people were kept precluded any question of their admittance to the centres of learning and enlightenment. The platitudes of the Suttas go down before the hard facts revealed in the Jātaka stories.

## II. The Pukkusa

Nothing can be definitely said about the origin or the occupation of these people. Even their name is subjected to a wide range of variants. The Brhadāranyaka Upaniṣad has Paulkasa, the Maitrāyaṇī Saṃhitā spells Puklaka or Pulkaka (I. 6. 11), the Vājasaneyi Saṃhitā Paulkāsa (XXX. 17). The Arthaśāstra gives Pulkasa. In the Smṛtis they appear as Pukkasa, while the Pali form is Pukkusa consistently. Like the *caṇḍāla* the *pukkasa* of the Smṛtis is a mixed caste, but opinions differ about his descent. The Arthaśāstra says that he is the issue of a *niṣāda* on an *ugra* woman (III. 7), Manu (X. 18) and Baudhāyana (I. 8. 11), on a *śūdra* woman. According to Viṣṇu (XVI. 5) and Vaiśiṣṭha (XVIII. 5) he is born of a Kṣatriya woman by a Vaiśya father, according to Gautama (IV. 19) by a Śūdra father.

Viṣṇu ordains that the *pukkasa* must live by hunting (XVI. 9). Manu assigns him "catching and killing of animals living in holes" along with two other mixed castes, viz, *kṣattrīs* and *ugras* (X. 49). In the Pali literature he appears in an altogether different rôle. The commentary on the Silavimamsa Jātaka explains him as one living by removing flowers (*pupphachaddakapukkusa*, III. 195). The *pupphachaddaka* also appears in the Milinda in a circle of despised castes and professions (p. 331). In the Theragāthā his occupation appears to be the removing of faded flowers from temples and palaces. Fick is thus led to state: "I don't believe that the Pukkusas were a special professional class but a race that lived generally by hunting and only occasionally by dirty work, like cleaning temples and palaces."<sup>9</sup> Dhammapāla's commentary however, throws more light on his functions. Thera Sunita born as a *pupphachaddaka*, earned his living as a street-sweeper, not making enough to kill his hunger. In early dawn he

9. Op. Cit. p. 206. On the *Pukkusa*, Rhys Davids says in the Pali Dictionary,—"name of a (non-Aryan) tribe, hence designation of a low social class,

cleared the streets of Rājagaha, collecting scraps, rubbish and so on into heaps, and filling therewith the baskets he carried on a yoke.

Whatever their origin and profession, one thing remains certain, —that they were a despised race whose lot was almost as bad as that of the *caṇḍāla*. In the Bṛhadāraṇyaka Upaniṣad *Paulkasa* is the name of a despised race of men along with the *caṇḍāla* (IV. 3. 22). In Manu (XII. 55) and in the Yājñavalkya (III. 20) they are classed with *caṇḍālas* and various breeds of animals as creatures in whose wombs a Brāhmaṇicide is born. In the Anuśāsanaparva they are the progeny of the *caṇḍālas*, eat the flesh of asses, horses and elephants, and just like the *caṇḍālas* wear clothes procured by stripping human corpses and eat off broken earthenware (48. 24). In the Jātakas they are very commonly bracketed with the *caṇḍālas*. Like that of their bed-fellows their sight was unseemly. Elder Sunīta plied his trade in early dawn obviously to escape sight. When Buddha was approaching with his train, finding no place to hide in on the road, he placed his yoke in a bend of the wall and stood as if stuck to the wall. He speaks of himself in the Theragāthā : “Of low family am I, I was poor and needy. Low was the work I did, namely that of removing faded flowers. I was despised by man, held in low esteem and re-proved.”<sup>10</sup>

*Nice kulamhi jāto 'ham daliddo appabhojano ;  
hīnaṃ kammaṃ mamaṃ āsi, ahoṣiṃ puṇṇhachaddako, 620  
jigucchito manussānaṃ paribhūto ca vambhito  
nīcaṃ manañ karitvāna vandissañ bahukaṃ janañ. 621.*

### III. The Nesāda

According to the Arthaśāstra and the Dharmaśāstras, the *niśāda* is the offspring of a Brāhmaṇa by a Sūdra woman. Fick groups him like the *caṇḍāla* and the *pukkusa* among the “ethnic castes” held together by a common race. The derivation of the word (*ni*—down, *sad*—settle) indicates those who have settled down, i. e., the settled aborigines.<sup>11</sup> As pointed out by Macdonell and Keith,<sup>12</sup> this view of Weber is supported by the fact that the ritual of the Viśvajit sacrifice requires a temporary residence with *niśūdās* ; for the *niśādas* who

the members of which are said (in the Jātakas) to earn their living by means of refuse-clearing.”

10. Cf. Oldenberg, Buddha, p. 159.

11. Rhys Davids gives in Pali Dictionary ‘one who lies in wait’.

12. Vedic Index.

would permit an Aryan to reside temporarily amongst them, must have been partially amenable to Aryan influence. But the name appears in early Vedic literature also as a general term for the non-Aryan tribes outside the Aryan organisation like the Sūdras; for Aupamanyava (Yāska : Nirukta, iii. 8) took the five peoples (*pañca janāḥ*) to be the four castes (*catvāro varṇāḥ*) and the *niṣādas* and the commentator Mahīdhara explains the word where it occurs in the Vājasaneyi Samhitā as meaning a Bhilla or Bhil (XVI. 27; cf. XXX. 8).

Apparently, the *niṣādas* were originally a tribal group who lived mainly by hunting and fishing, the professions which represent the lowest stage of human culture. In India these bore the additional stigma of killing living beings.<sup>13</sup> This stigma and the consequent isolation retarded racial admixture and these people retained their tribal characteristic within the Aryan structure. In the Pali and Sanskrit literature we hear not only of villages and settlements but also of states, kings and armies of *niṣādas*. The legal definition of their origin however shows that the racial isolation gradually slackened under the stress of material circumstances. A Brāhmaṇa youth adopts the occupation of a hunter when he cannot maintain himself by any other art and dwells in a border village or outside city gate (Jāt. II. 200; VI. 170). Among the ten callings of a straying Brāhmaṇa appears the hunter's (IV. 361 ff.). The profession followed by the entire branch of a low race took the shape of a caste when it was reinforced by infiltration from higher caste-orders.

It is not to be supposed that the profession of animal killing was confined to a specific tribe or caste or that all those who took to it received the stamp of the specific caste-denomination *niṣāda*. Manu assigns slaughter of wild animals to the mixed castes of Medas, Andhras, Cuñcus and Madgas, of cave-dwelling animals to Pukkusas, Kṣattris and Ugras while reserving killing of fish to *Niṣādas* (X. 48f.). Elsewhere the snaring of animals is attributed as a supplementary occupation to the mixed caste of Sairandhra (X. 32). Megasthenes' fourth class of population consists of aboriginals herdsmen and hunters—"those who alone are allowed to kill animals," representing a professional class rather than a tribal or caste group. What may be inferred is that these professions were pursued more or less by all aboriginals although the *niṣāda* tribes were hunters *par excellence*, so much so that a professional hunter came to be called a *niṣāda* in popular parlance whatever his tribal origin.

13. *dūṣitaḥ sarvalokeṣu niṣādātvaṃ gamiṣyati*  
*prāṇātīpātānirato niranukrośatām gataḥ.*

The strictly professional name as distinguished from the racial is 'uddaka' for hunter and 'kevaṭṭa' (Sans. Kaivarta) for the fisherman or boatman. In the Pali works we come across the *vattakaluddako* (Jāt. I. 208, 434 ; II. 113), the *godhaluddako* (I. 488 ; III. 107), the *tittiraluddako* (III. 64), the *migaluddako* (II. 153 ; III. 49, 170, 185) according as the hunter or fowler specialised in stalking a particular beast or bird and purveyed its flesh. The *kaivarta* likewise seems to be a professional and not a tribal name. It does not appear in the Smṛti lists of mixed castes. According to the nomenclature of Manu the caste name corresponding to the fishing profession is *mārgava* or *dāsa* begotten by a *niśāda* on an *āyogava* woman (another mixed caste) and "subsisting by working as a boatman whom the inhabitants of Āryāvarta call a *kairvarta*" (X. 34). The *niśāda* king Guha is seen ready with his flotilla of 500 boats and hundreds of *kaivarta* soldiers in anticipation of Bharata's hostility to Rāma (Rām. II. 84. 8). Within the profession of a *niśāda* fishing appears as a matter of course, as much as hunting (Mbh. I. 28 ; Jāt. VI. 71f.).

As these people excelled in bagging the different species of the fourfooted, feathered and finny races, their arts, appliances and accomplices differed accordingly. The quail-trapper nets quails by gathering the birds with the imitation of the note of a quail (Jāt. I. 208, 434 ; II. 113) and the partridge-catcher snares his preys by means of a decoy bird (III. 64).<sup>14</sup> The iguana-trapper goes to the forest to dig out iguanas with spades and dogs (*godhābilaṃ bhindanattthāya kuddālāṃ gahetvā sunakhehi saddhiṃ araṇṇaṃ pāvisi*, I. 488). The deerstalker marks the whereabouts of deer from their foot-prints traced from the water-place, sets the toils (*migaluddako vaddhamayaṃ pāsam oddetvā agamāsi*, II. 153) and bags his victim with sword and spear (*asiṇ ca sattiṇ ca*, III. 185). Bows and arrows instead of the snare and the sword or spear were also used (II. 200). For fishing purposes, nets were the commonest instruments while the line (*bālīsiko baḷisena maccha uddharati*. Mil. P. 412 : cf. Jāt. I. 482) and the wicker-cage (*kumināni* I. 427) set in pits and holes of rivers (*nadikandarādīsu*, II. 238) were also in use. It is not always however that the *nesāda* specialises in killing a particular animal and very often all manner of birds, beasts and fishes come within his pursuit (II. 200 ; VI. 71f., 170).

The professional hunter of course sells his bag,—beast, bird or fish, at the market-place in the adjoining city. He may have a modest catch that can be carried on a pole (VI. 170) or there may be a wind-

14. Just like his modern prototype. The sānthālas, kōls and other aborigines still catch partridges and doves by the same artifice.

fall so that he drives a cart-load of venison (III. 49). The hunters probably disposed of their booty to the retailers who ran stalls of different varieties of flesh in the market-place.<sup>15</sup> There were also people who did not dispose of their prize but lived upon them direct. "Certain men of the marches (of Benares) used to make a settlement wherever they could best find their food, dwelling in the forest, and killing for meat for themselves and their families the game which abounded there" (IV. 289). This is reminiscent of the accounts of Diodorus and Arrian of the wild nomadic tribes who lived on chase outside human dwellings. As the conquerors appropriated land of the superior grade, the more conservative of the original settlers withdrew to the marches where land offered little attraction to the tiller. Hunting, animal-keeping and free-booting became the occupation of these Bohemians. They were less amenable to Aryan Culture and consequently accorded a more dishonourable status than their more settled compatriots.

It is not possible with available data to fix the geographical regions where the hunting and fishing folk were mainly located. Probably they were scattered all over the country, generally grouped in their own villages, situated outside the borders of cities as usual with other despised professions and castes, and generally fitted in a structure of communal economy. They are referred to as plying their nets jointly and as being obedient to one another's bidding (*anyonyavaśavarttināḥ* Mbh. XIII. 50). Elder Yasoja was born at the gate of the city of Sāvatti in a fishers' village, as the son of the headman of the 500 fishermen's families who fish together in the river Aciravatī Therag. VV. 243 ff. The anglers (*bālīsikā*) in another village are in the habit of sharing their prize as it appears from a ruse planned by one of them who had a snag in his tackle and took it to be a big fish :

*puttakam mātu santikam pesetvā paṭivissakehi saddhim kalaham kārāpemi, evam ito na koci koṭṭhāsam paccāsinissati* (Jāt. I. 482).

Elder Losaka Tissa was born in a fishing village of a thousand families (*kulasahassavāse kevaṭṭagāme*) in Kosala of which the 1000 heads went together to fish in river and pool (I. 234). Elsewhere fishing *niṣādas* are found to live in a remote region in the midst of the ocean (*samudrakukṣāvekānte niṣādālayamuttamam*, Mbh. I. 28). The fishing tribes of the western countries brought tribute to Yudhiṣṭhira (II. 32. 10). In a Jātaka story are found two villages of hunters

15. *Goghātako, orobhiko, sūkariko, māgaviko, sākuntiko* etc. are butchers in different varieties of flesh and not keepers or hunters of different animals.

near Benares on the two banks of a river each with a chief over its 500 families (VI. 71 f.) A *nesādagāma* near Benares is very common reference (II. 36 ; IV. 413 ; V. 337 ; Therig. Com. 291 ff.) and such villages are seen as early as in the Lāṭyāyana Śrauta Sūtra (VIII. 2. 8).

Von Schroeder suggests identification of the *niṣādas* with Nysaeans who, according to the Greek memoirs sent an embassy to Alexander when he was in the land of the Aśvakas.<sup>16</sup> The identification however is doubtful. Varāhamihira recognises a kingdom (*rāṣṭra*) of the *niṣādas* in the south-east of the Madhyadeśa (Br. Sam. XIV. 10). Guha's principality was situated on the banks of the Ganges beyond Kośala with the city of Śṛṅgavera (Rām. II. 50 ; 83. 19).

The *nesāda* was despised both for his profession and for his birth. His was a despicable pursuit (*luddācāra khuddācārā'ti*, Dn. XXVII. 25). That animal-killing was stigmatised is evident throughout the Jātakas. It is among the ten pursuits of straying Brāhmaṇas. A king asks a hunter to give up his calling and adopt agriculture, trade and usury (IV. 422). A *setṭhi's* son also dissuades a *luddaka* from his profession (III. 51). It is given that these ill-behaved people (*dussilānaṃ migaluddaka-macchabandhādīnaṃ*) receive but do not follow the law (III. 170). In the Mahābhārata a long tribute is paid by Śakra to the *niṣāda* king Nala who is well-versed in all duties, conducts himself always with rectitude, has studied the Vedas. . . . leads a life of *harmless-ness unto all creatures*, is truth-telling and firm in his vows and in his house the gods are ever gratified by sacrifices held according to the ordinance. In that tiger among men—that king resembling a *loka-pāla* in truth, forbearance, knowledge, asceticism, purity, self-control and perfect tranquillity of soul. . . and so on (III. 58. 8–11). According to the Brāhmaṇical rules a Śūdra is not allowed to read the Vedas nor to perform sacrifices, not to speak of a *niṣāda*. The picture is unreal and the encomiums may not be taken to suggest that the *niṣāda* who gave up his trade was promoted from his order to higher ranks.

A more realistic account is that of the *niṣāda* king Guha who claims Rāma's friendship and is embraced by the latter. But neither Rāma nor Bharata accepted the food offered by him. Unlike the Vānara and the Rākṣasa allies, the *niṣāda* king does not figure in the sacrificial rites and public jubilations held after Rāma's return from exile to Ayodhyā. The *niṣāda* was a despised creature both by birth and profession and stood just above the *caṇḍāla* and the *pukkusa* in the scale of social gradation.



## IV. The Veṇa

Like the *nesāda*, the *veṇa* and the *rathakāra* were according to Rhys Davids "aboriginal tribes who were hereditary craftsmen in these crafts."<sup>17</sup> Fick describes them as "professional castes" or "non-Aryan races" who, although they stood on a higher culture-level than the hunting and fishing races, engaged in branches of profession the practice of which presupposed no acquaintance with metals and their employment and were therefore held in low esteem by the Aryans who worked with iron instruments".<sup>18</sup> The Aryans advancing along the Gangetic plains gave the original settlers names after the material with which they worked. Thus the 'bamboo-worker' and the 'carriage-builder' became names of tribes or castes (Jāti).

The *veṇa*, literally, is one working with bamboo reeds. In the Vedas, *veṇu* is mentioned as reed of bamboo ; but *veṇa*, *vaiṇa* or *veṇukāra* are not seen.<sup>19</sup> Apart from the Pali passages referred to above, the *veṇa* appears at the end of the Milinda list of crafts and professions along with the *chavadāhaka*, *pupphachaddaka* and *nesāda*. In a Jātaka verse the *veṇī* is bracketted with the *caṇḍālā* (sic) as a term of rebuke (V. 306). The *veṇukāra* or *veḷukāra* who goes into the forest with his knife to collect a bundle for his trade (Jāt. IV. 251) is probably another name of the same "functional caste" who ranks in the conventional fashion along with the *caṇḍāla*, *pukkusa* and *rathakāra* in the Lalitavistara as *hīnakula* in which a Bodhisatta is not reborn (Ch. III).

The tribal craft of these people was working with reeds, i. e. basket-making and flute-making. Dhammapāla explains them as a caste working on willows and reeds (*veṇiṇ vā ti veṇajātikā vilivakāra-nalākārā*, Pv-A. p. 175). The Jātaka commentary on *veṇī* (V. 306) explains it by *tacchikā*,—a carpenter's widow.<sup>20</sup> Probably the original bamboo-working race was not always rigidly identified with his profession. Manu defines the function of the *veṇa* as playing drums (X. 49) while the craft of making baskets and other things with cleft bamboos is ascribed to the *pāṇḍusaṃpaka* caste originating from the *caṇḍāla* (Mbh. XIII. 48. 26 ; cf. Manu, X. 37).

17. Dialogues of the Buddha, Vol. I, p. 100.

18. Op. cit. p. 208.

19. In the Arthaśāstra, the *vaiṇa* is the issue of an Ambaṣṭha on a Vaidchaka woman (III. 7).

20. Thus one despised caste is explained by means of another. In the Vedic literature the *taṣṣaka* or joiner appears in a low rôle,

## V. The Rathakāra

The *Rathkāra* or chariot-maker is in the Atharva-veda one of those subject to the king (III. 5. 6) apparently standing as an example of the industrial population. It appears definitely as a caste-name in the Yajurveda Saṃhitās (Kāth. XVII. 13 ; Mait. II. 9. 5 ; Vāj. XVI. 17 ; XXX. 6) and in the Brāhmaṇas (Tait. I. 1. 4. 8 ; III. 4. 2. 1 ; Śat, XIII. 4. 2. 17). In the Yājñavalkya he is the progeny of a *māhiṣya* (Kṣatriya father+Vaiśya mother) and a *karaṇi* (Vaiśya father+Śūdra mother). In later literature he is a caste below the Vaiśya but superior to the Śūdra.<sup>21</sup> His is a functional caste like the *lakṣaka* and the *dhaivara*, the carpenter and the fisherman respectively in the Vedic literature, held as inferior to the *ārya* orders. His further deterioration in social esteem is exhibited in the Pali texts quoted above. In the Khaṇḍahāla Jātaka he figures in a low series with the *pukkusa* and the *vesa* (VI. 142).<sup>22</sup>

This *rathakāra* whose very appellation indicates the function of chariot-building, became associated in course of time with a new craft, that of working on leather. Probably this transformation from a comparatively less to a more disrespected pursuit took place in the Gangetic regions and probably this also explains the consequent deterioration in social status of the caste as seen in Pali literature. In the Majjhima the artisan who is shaping an axle of a chariot (*rathassa nemim*) is not a *rathakāra* but a *yānakāra* (I. 5). In the Jātaka verses the metaphor occurs twice,—“just as the *rathakāra* cuts the shoe according to the skin” (*rathakāro va cammassa parikantam upāhanam*, IV. 172 ; *rathakāro va parikantam upāhanam*, VI. 51). In the first, the commentary explains *rathakāra* as *cammakāro*. The commentary on the Petavatthu also explains *rathakārin* as *cammakārin* (III. 1. 13). But certainly there was no complete overlapping of the two crafts in the same caste, for the *cammakāra* and the *rathakāra* are both mentioned side by side in the Milinda list referred to above.<sup>23</sup>

That the two were not identified is also proved by the enumeration of the *cammakārasippam* among the set of despised callings cited in contradistinction from the despised castes. The occupation of a

21. Weber: Indische Studien 10, 12, 13. Hillebrandt suggests that the Anu tribe formed the basis of this caste, referring to their worship of the Ṛbhus who are chariot-makers *par excellence*. Vedische Mythologie, 3, 152 f.

22. In the Arthaśāstra, the *rathakāra*'s is a profession prescribed for the mixed caste of Vaiṣya (III. 7), but in the previous chapter, it is a caste-name.

23. Cowell and Rouse find a puzzle in this dual function of the *Rathakāra* and take refuge in the suggestion that he might be the worker of wooden shoes.

cobbler was held disreputable in all quarters. Manu assigns working in leather to the mixed castes of *kārāvāra* and *dhigvaṇa* (X. 36. 49): this *kārāvāra* again, is said to be begotten by a *carmakāra* on a *niṣāda* woman (Mbh. XIII. 48. 26).<sup>24</sup> Food offered by the shoe-maker is not to be taken by a Brāhmaṇa (Mbh. XII. 37. 31). Even trading in iron and leather is censurable (*vikrayaṃ lohacarmaṇaḥ*, XII. 295. 5f.).

The leather-worker's was a developed art. He did not make shoes only. He prepared leather-sack holding a hogshead's weight (*kumbhakaraḡāhikaṃ cammabhaṣṭam*),<sup>25</sup> leather ropes and straps, shoes "big enough for an elephant", and leather parachute (*cammachatta*) by means of which a hunter flies down a mountain (Jāt. V. 45f.). He worked shields of 100 layers, of superb workmanship (*phalasatam*<sup>26</sup> *cammaṃ hontīmantiṣuniṭṭhitam*, VI. 454). He is among the eighteen *senis* of artisans who build a king's dwellings in Uttarapañcāla (VI. 427).

### The Mleccha and the Apasada

The conventional Pali list does not certainly exhaust the medley of castes and tribes who either because of their race or for low occupations remained outside the pale of the Aryan culture. Under the general brand of *mleccha* passed the procession of indigenous and foreign barbarians in the Epics,—the Pahlavas, Śakas, Yavanas, Kambojas, Kirātas, Cīnas, Hūṇas and so forth. Sinful races who act like *caṇḍālas*, ravens and vultures are Andhakas, Guhas, Pulindas, Śavaras, Cūcukas and Madrakas in the South and Yaunas, Kāmbojas, Gandhāras and Kirātas in the North (Mbh. XII. 207. 42ff.). The Yonas, Kambojas and Gandhāras were settled in the North-West-Frontier Province. Among the Yonas the Brāhmaṇa and the Śramaṇa had no foothold in Asoka's time (R.E., V). Among them and the Kambojas, it is said in the Majjhima, there were only two castes, *ārya* and *dāsa* (*d'eva vaṇṇā ayyo c'eva dāso ca*) and where a *dāsa* can be an *ārya* and an *ārya* a *dāsa* (Sut. 93). The Andhras occupied the land beyond the Godāvarī,—the southern part of the Central Provinces and the Nizam's dominions. The Pulindas, though scattered over many provinces appear mainly

24. According to Manu, however, by a *niṣāda* man on a *vaideha* woman.

25. Cf. the *cammamāluka* or the leather sack used to carry earth dug out of a tunnel (Jāt. VI. 432).

26. *phalasatappamāṇaṃ bahukhāre khādāpetva mudubhāvaṃ upanīta-cammaṃ*,—Com.

in the north and north-east of the Andhras (R. E. XIII).<sup>27</sup> The Ābhīras who earned notoriety as a tribe of robbers (Rām. VI. 22. 3of.) infested the western coast south of Guzrat.

In the Arthaśāstra, the *mlecchas* figure as savage, barbarian tribes inhabiting the frontiers (VII. 10, 14 ; XII. 4). They are associated with criminals (XIII. 5) and the sardonic author finds in them a good recruiting ground for spies and agents provocateurs (I. 12, XIV. 1).

To Megasthenes some of these tribes were reported as pigmies waging war with cranes and partridges ; to the author of the Periplus they are savage and cannibal races—the Cirrhadæ, the Bargysi, the Horse-faces and long-faces who inhabited the North or the Himalayan valleys.

Apart from these the Smṛtis enumerate as many as fifteen mixed castes (apasada) ascribing some particular infamous occupation to each of them. The elaborate regulations on these mixed castes and their unmitigated denunciation would not have been necessary unless there was a real menace to the purity of the Aryan stock from connubial relations with non-Aryan tribes. Racial admixture was laid under the strictest interdict and the progeny of the violation of Aryan blood, relegated to all sorts of impure crafts and callings, were debased into the lowest stratum of social conformation.

27. D. R. Bhandarkar : Asoka, pp. 35ff.



## ADMINISTRATION UNDER THE PĀLAS & THE SENAS

(continued from p. 219, Vol. VII, no. 2.)

By BENOY CHANDRA SEN

Two designations in particular seem to bear the mark of such a tendency in the policy of the State crystallising into a definite shape, viz., *Mahākumārāmātya* and *Mahāsāmanta*. The officer styled *Mahākumārāmātya* was evidently appointed to exercise a sort of general control over and guide the conduct of the *Kumārāmātyas*, and the officer designated *Mahāsāmanta* was entrusted with similar functions in regard to the feudatories of the king. *Kumārāmātyas* are known to have been employed in the Gupta period as district officers working under the direction of provincial governors. The appointment of a *Mahākumārāmātya* and a *Mahāsāmanta* shows that the Pāla kings were well aware of the inherent evils and dangers of an imperial system, often originating from maladministration of provincial officers and the recalcitrance and disloyalty of feudatories, which they were anxious to eliminate by bringing them under a system of unified control. It cannot be claimed, however, that the Pālas originated a novel policy, for many of such designations with the prefix 'Mahā' occur in several earlier inscriptions. It may be mentioned here that in the list of officials supplied by the Manahali grant of Madanapāla there is the mention of a *Mahāsāndhivigrahika*, while the grant itself is associated with a *Sāndhivigrahika* as its *Dūtaka*. Similarly, the Bāngarh list, if it includes a *Mahāmantri*<sup>1</sup>, will prove the existence of such a high office in addition to those of *Mantrins*, one of whose names seems to be given as that of the *Dūtaka*. Among the other officers named in the Pāla inscriptions, the *Mahākārttākṛtika* is sure to attract special attention; the *Kārttākṛtika* of the Mallasārul inscription (6th century A.D.) is already a familiar figure. Perhaps it will not be a mistake to suppose that in the imperial system of the Pālas there was room for many *Kārttākṛtikas*, *Pratīhāras*, *Daṇḍanāyakas*, etc., as well as *Śāmantas* and *Kumārāmātyas*, spread over a wide geographical area, and that heads were appointed at the centre to keep them under pro-

1. Gaudalekhamālā, p. 96. R. D. Banerji reads 'mahāmātya' (l. 33), Ep. Ind., XIV, p. 326.

per control and maintain some uniformity in the policy and conduct of government in so far as they were dependent upon these different classes of officers and supporters of the State. The *Mahāsāndhivigrahika*, who figures in the Bhāgalpur grant, being in charge of Peace and War, must have occupied a specially important place, as the Pālas throughout had a military career, having been required to fight against a series of external enemies for defensive as well as offensive purposes. The Bhuvaneswar (?) *Praśasti* of Bhaṭṭa Bhavadeva gives the account of a Brahmin family which produced some successive generations of *Sāndhivigrahikas*. The earliest of them probably served under a Candra king described in the inscription as the ruler of Vaṅga. Bhaṭṭa Bhavadeva himself was engaged as such a minister under Harivarṇadeva who appears to have been a king of the Varman dynasty which supplanted the Candras in East Bengal. It is necessary to take note of the fact that Ādideva, the first in the family that had settled at Siddhala in Rāḍhā (West Bengal) to adorn the office of a minister, has been given several epithets or designations. He was the *Viśrāmasaciva*, the *Mahāmantri*, the *Mahāpātra* and the *Sāndhivigrahī* of a king of Vaṅga. He enjoyed the greatest confidence of his master as he was allowed, not in his private capacity, but as a *Saciva*, to enjoy the company of the king when he was free from all preoccupations; that is to say, matters of statecraft used to be discussed in complete privacy between these two persons. He, therefore, has been rightly described as the Chief *Mantrin* (*Mahāmantri*), i.e., the chief of the royal advisers or counsellors; and the designation '*Sāndhivigrahī*' shows that as the *Viśrāmasaciva* and *Mahāmantri* of the king he specially concerned himself with questions of war and peace. Although no such particular designation have been applied to the Brahmins whose activities are recorded in the Badal *Praśasti*, it appears highly probable that functions denoted by these titles were similarly entrusted to them by the Pāla monarchs under whom they served. An outstanding personality, Bhaṭṭa Bhavadeva, who flourished in a subsequent period, serving under Harivarṇadeva, has been described as his *Mantraśakti-saciva* (verse 16)<sup>2</sup> whose ministry was probably responsible for the victory of the king over the Nāgas, and, among other things, for the long reign which he enjoyed. There seems to be no doubt that his functions were the same as those of his ancestor Ādideva; he was a *Mantri* and *Saciva* like him, his principal authority being associated with *Mantraśakti* which means the policy of war and

2. Ins. of Beng. (IB.), p. 38, n. 4.

peace.<sup>3</sup> The inscription seems to contain a hint that his son was also a high officer who had a practical knowledge of *Danḍa-nīti* (verse 16). It is claimed in the Bhuvaneswar inscription, that Bhaṭṭa Bhavadeva was well acquainted with the Vedas, the *Āgamas*, the *Arthaśāstra*, the science of medicine, the science relating to the use of arms, *Siddhānta*, *Tantra*, *Gaṇita*, the *Bhālasamhitās* (Astrology), and that he was the author of a treatise on *Horāśāstra* (Horoscopy) and also works on *Mīmāṃsā* philosophy and the *Dharmaśāstra*. Three extant texts, the authorship of which belongs to Bhavadeva, viz., the *Tautātītamata-tilaka*, the *Karmānuṣṭhāna-paddhati* or *Daśakarma-paddhati* and the *Prāyaścittaprakaraṇa* (the first treatise being on *Mīmāṃsā* and the two others on *Smṛti*), substantiate the evidence of the inscription as they are actual proofs of his scholarship and literary activity. Madanapāla was served by a *Sāndhivigrahika* named Bhīmadeva appointed as the messenger of the Manahali grant. Lakṣmaṇasena was also served by a scholar-minister, Halāyudha (a Brahmin of this name is mentioned in the Edilpur grant of Keśavasena).<sup>4</sup> Harighoṣa served as a *Sāndhivigrahika* under Vallālasena, who performed the duties of a *Dūtaka* in connexion with the grant recorded in the Naihāṭi copper-plate. Lakṣmaṇasena's *Sāndhivigrahika* was entrusted with the work of a messenger in connexion with his Tarpaṇḍighi, Govindapur and Ānuliā grants. *Sāndhivigrahika* Nāṇisimha serving under Viśvarūpasena carried out similar duties in respect of the Sāhitya Parishat grant.

The *Mahākṣapaṭalika* appearing for the first time in the Bhāgalpur grant must have been the officer in charge of Accounts. The Gupta inscriptions show that there was often a number of *Pustapālas* who had to be consulted at the time of sale of lands by Government. The *Mahākṣapaṭalika* was stationed at the centre of the empire, and it was a part of his duties to supervise the whole department of Records with branches probably in the different provincial towns and cities.<sup>5</sup>

Among officials connected with the central administration or executive, the nature of whose duties and functions is being investigat-

3. The Junagarh inscription of Rudradeva (150 A.D.) mentions two classes of *Sacivas*, viz., *Karma-sacivas* and *Mantra-sacivas*, see Ep. Ind., VIII. The success of Rājyapāla is attributed to his possession of the threefold strength constituted by *utsāha* (energy), *mantra* (counsel) and *prabhu* (authority); see for instance the Amgachi grant, Ep. Ind., XV (v. 9), p. 296.

4. IB., pp. 121 ff.

5. See IB., App. 10, p. 186; Antiquities, p. 133; Fleet CII., p. 190, n. 2. The *Arthaśāstra* of Kauṭilya gives a detailed account of the duties attached to the *Akṣapaṭala* under *Gāṇanikyādhikāra* (II, 7). Among such duties particular attention may be given to those connected with the [compilation and preserva-



ed, may be mentioned the *Pramātr*, who seems to have been concerned as a judge with civil cases only. Vogel<sup>6</sup> on the authority of the chronicler Śrīvara is persuaded to conclude that this officer was entrusted with the administration of justice, but the passage quoted by him seems to show that the scope of his work was limited to cases relating to disputes regarding property. The title *Rājasthānīya*, where it occurs singly, is taken by Bhagawanlal Indraji to mean 'a political agent,' and by Bühler the official who carries out the object of protecting the subjects and gives them shelter, *i.e.*, a Viceroy. Stein<sup>7</sup> shows that this office was connected with the administration of justice, and Vogel,<sup>8</sup> accepting this meaning, adds that the *Rājasthānīya* performed duties equivalent to those of Chief Justice. This designation appears in some places to form a compound with 'uparika' (a provincial governor?). In such cases it is probably meant, if the interpretation by Stein and Vogel is to be accepted, that the administrator of a province, besides being an executive officer, also performed judicial duties. It should be noted here that in the Badal *Prasasti* king Nārāyaṇapāla is referred to in its verse No. 20 as *yasyānalpamater-ameya-yaśaso Dharmmāvatāro'vadat*. In what sense this expression has been used here may be understood from the Kamauli Plate of Vaidyadeva, in which Gonandana Kovida (scholar) is described as engaged in the post of *Dharmādhikāra* (*Dharmm-ādhikār-ārppita*...). The Nālandā grant of Devapāla is referred to in that inscription as *dharmmādhikāra*, which has been translated by Hirananda Śāstri as 'religious undertaking.' In the light of the evidence contained in the Kamauli Plate it will be more reasonable to hold that there was a department styled *Dharmādhikāra* (*Dharmādhikaraṇa*), and that the Nālandā grant was regarded as a matter which pertained to that department. The essential function of this department must have been connected with the issue of grants, as both the Nālandā and Kamauli grants show, and that it usually worked in co-operation specially with the department of *Sandhi* and *Vigraha*, as the messengers of many of the available grants are found to have been those in charge of that portfolio.<sup>9</sup> It

tion of the] history of customs, professions and transactions of countries, villages, families and corporations; the gains in the form of gifts to the king's countries, their title to possess and enjoy lands, remission of taxes allowed to them, etc.

6. Antiquities, pp. 122-23.

7. Rājat. (Stein's Translation), Vol. 1, p. 310 n.

8. Antiquities, p. 122.

9 The Dāmodarpur Plate No. 5 also contains a passage which refers to *dharmmādhikāra*, see Ep. Ind., XV, p. 143 where a similar explanation is possible.

is clear at any rate that the term *Dharma* has not been used in the *Badal Prasasti* in the sense of *Rājadharmā*, but in a specific sense, probably in the sense of justice. If so, it will be difficult to hold that the king himself had no part to play in the administration of justice which used to be carried on through officials only. He probably served as the highest court of appeal while the normal judicial duties were left in the hands of others. The *Sarabhaṅga*'s functions are not quite clear. If the term means one who pierces with arrows, it will still not give a definite idea of his official work. The designation is used only in the inscriptions of Devapāla and the Nālandā grant of Dharmapāla. Its occurrence in the Camba inscriptions has been noticed by Vogel. According to Dr. R. G. Basak,<sup>10</sup> the designation may have been applied to superior military officers in the Army, equipped with bows and arrows. The designation, however, does not contain any element indicative of this position of superiority among men of a certain class, as understood by this scholar. The *Sarabhaṅga* may have been an officer whose usual function was to accompany the king on his hunting expeditions, if the use of arrows was the characteristic mark of his service, and to look after all business relating to such activities of his master. The *Dūta-praiśaṇika* was another officer connected with the central executive. As the designation clearly shows, he was in charge of the department concerned with the despatch of envoys to friendly states on diplomatic business. This Department must have worked in co-operation with the department of war and peace controlled by the *Mahāsāndhivigrahaika*. The *Dāsāparādhika* was in charge of cases relating to the commission of "the ten offences."

The *Kṣetrapa* was probably the officer in charge of all matters concerning cultivated lands. His department must have kept an account of every holding paying taxes to the king, and as such its activities were co-ordinated with those of the *Mahākṣapatalika* and his staff. Besides the various officers mentioned, there were some who cannot be regarded as having been directly associated with the conduct of central or provincial administration. They do not appear to have been departmental heads like others. When designations to be applied to them are mentioned, it should be presumed that a group of individual officers enjoying the same rank in each case and performing duties of the same nature are meant. There must have been a number of *Prāntapālas* (governors of borders) and also several *Koṭṭapālas*. Such officers may have been responsible not to the Provincial government but to the military department, the supreme head of which was the *Senāpati* or the *Mahā-*

10. Pāla-Sāmrājyer śāsana-praṇālī, Pravāsī, B. S. 1343, Āśvīn, pp. 1-9.

*ānḍanāyaka*. It will appear that the jurisdiction of provincial government became narrower owing to the separation of military duties from the executive. But as it is not known definitely whether the *Prāntapālas* and the *Koṭṭapālas* owed their allegiance to the provincial governors within whose areas their spheres of activity may have fallen, it will be impossible to form the hypothesis from the mere mention of these designations that Government by appointing those officers were actuated by a policy of checking the prospect of an easy victory for any movement of provincial independence that might be set afoot by a disloyal, disaffected or ambitious governor of a district or province.

The inscriptions of the Candras, the Varmans and the Senas show a large measure of agreement with the inscriptions of the Pālas in respect of those portions which refer to the administrative machinery. Apart from minor modifications of official designations, the principal omissions in the former group of inscriptions are those of the *Prāntapāla*, the *Mahākumārāmātya*, the *Grāmika*. The Rāmpāl inscription of Śrī-Candra omits the *Rājasthānīyoparika*,<sup>11</sup> but this record of the Candra dynasty, the Belāva copper-plate grant of Bhojavarman of the Yādava family, and the grants of the Senas mention the *Antaraṅga-Bṛhaduparika*. Two new additions are the *Mahāvīyūhapati* (the chief military officer amongst those in charge of different squadrons), occurring in the Candra, Varman and the Sena grants (excluding the Śaktipur grant<sup>12</sup> of Lakṣmaṇsena), and the *Mahāpīlupati* (officer in charge of the elephant force),<sup>13</sup> appearing in the Varman and Sena inscriptions. The functions of the latter officer must have been different from those of the *Adhyakṣa* in charge of elephants, who also appears in these grants along with the *Pīlupati*. The most important additions are the *Mahādharmaādhyakṣa*, who performed the duties of the Chief Justice, the *Mahāpurohita*, the Chief Priest, appearing in the grants

11. The term *Rājasthānīya* is interpreted by Bühler from an explanation given in Kṣemendra's *Lokaprakāśa* (Ind. Ant., vol. V. p. 207) as meaning "he who carries out the object of protecting subjects, and shelters them." In the Mandasor inscription of Yaśodharmadeva of the Mālava year 589 mention is made of the *Rājasthānīya* Abhayadatta, protector of the region between the Pāriyātra and the Western Ocean. He was succeeded in the post by Dharmadoṣa who bore the heavy burden of Government for his lord (atigurubhāraṁ yo dadhad bhartur arthe—l. 18), see Fleet, CII, p. 154, and his remarks in f. n. 1 on the same page.

12. Ep. Ind., XXI, pp. 211 ff.

13. On this term, see IB., p. 186.

of Lakṣmaṇasena, besides the Edilpur and Madanapādā grants<sup>14</sup> and the *Mahāsarvādhikṛta* or the Chief Superintendent exercising some kind of unspecified supervision over all the departments of the State. The term '*Sarvādhikṛta*' can be traced in the copper-plates of the Vākātakas, and among the non-Pāla inscriptions, the office of the *Mahāsarvādhikṛta* is found referred to only in the Rāmpāl inscription of Śrī-Candra, and later, in the Rāmganj inscription of Īśvara-ghoṣa<sup>15</sup>. From the non-mention of this designation in the records of the Varmans and the Senas, it may be inferred that the office denoted by the term may have been abolished, as the experiment involved in the institution of the post by Śrī-Candra probably did not prove a success. The Varmans and the Senas do not, therefore, appear to have encouraged a step by which so much power was to be put in the hands of a single officer. There are two other offices which are not mentioned in the Pāla inscriptions : the post of the *Pīṭhikāvitta*, noted only in the Belāva copper-plate, and that of the *Mahāgaṇastha* appearing in the Sena grants. The *Pīṭhikāvitta* was probably an officer engaged in collecting some kind of state-dues from visitors to sacred places or from incomes accruing to religious institutions. It is to be noted that he is mentioned next to the *Purohita* (Priest) in the Belāva grant (cf. *Pīṭhādhikaraṇa* referred to in the Rājarataraṅgiṇī). As regards the other post, perhaps a definite clue to the functions attached to it is to be found in '*gaṇa*,' which means, among other things, a small body of troops. The *Mahāgaṇastha* will thus appear to have been a high military officer acting as the Head of the different units, each called a *gaṇa*, in the Army of the Varman and Sena Rulers. In the inscriptions of these kings this designation is found in close combination with '*Mahāvīyūhapati*' and '*Mahāpīlupati*,' which also appear to have been names of certain military posts. As already stated, in the Pāla inscriptions which do not mention these new offices, references to the designation '*Mahādāṇḍanāyaka*' are to be found, but in the Varman and Sena grants where the former designations occur, '*Dāṇḍanāyaka*' replaces '*Mahādāṇḍanāyaka*'. It is not improbable that the Army was reorganized on a new basis, as suggested by the use of the terms '*vyūha*' and '*gaṇa*,' although the principle according to which, under the Pālas, the *Mahādāṇḍanāyaka* acted as the supreme Head of the Army, may have continued to operate under the other dynasties, perhaps in a less prominent manner, being required to be adjusted to the new system of control and discipline in the military administra-

14. JASB., Vol. LXV, Pt. I. pp. 9 ff.; IB., pp. 133 ff.

15. IB., pp. 149 ff.

tion. Another noteworthy feature in the administration under some of the non-Pāla, non-Buddhist sovereigns is the officialisation of the Brahmin priest. As the Brahmanical elements in the social organization were being brought in an increasing measure under the control of the priestly class, the administration of the country could not remain free from the direct influence of that community. No doubt it had always been possible in the past for the priest in a Brahmanical court to act as a moral force behind the throne, but he now comes directly into the picture as a part of the administrative machinery itself. Under the Sena Rulers the *Purohita* is given the recognized status of a high Government officer (*Rājapuruṣa* or *Adhyakṣa*), the head of a state department. The interest of such an officer whose position in the social sphere was one of unquestioned domination, would naturally lie in the administration becoming a tool of priesthood.

The Edilpur grant probably refers to an official, styled *Gauḍa-Mahāmahattaka* (cf. the designation '*Gauḍa-Sāndhiyagrāhika*', occurring in the Madanapāḍā grant by which the Minister of War and Peace serving under the Gauḍa king must have been known), who is believed by some to have acted in the capacity of the Prime Minister of Gauḍa. The information is given in the inscription that the grant had to pass through the hands of the king's own staff, as well as the staffs respectively of the *Mahāsāndhiyagrāhika* and the *Mahāmahattaka*. While there cannot be any doubt that this *Mahāmahattaka* was one of the highest officials of the king, it is not known on what authority his post can be taken definitely as identical with that of the Chief Minister. As such an officer is not referred to in any of the earlier inscriptions from Bengal, it may be that in view of the precarious condition of the royal family, this new post was instituted as an emergency measure, providing for the assumption of supreme control of the administration in case of necessity by some one who stood next to the king. The designation '*Saciva*' also occurs in the same inscription which refers to the *Gauḍa-Mahā-mahattaka*.

There is no such definite information as is to be found in the earlier inscriptions regarding the manner in which the different units of a kingdom used to be generally administered during the four centuries commencing from the time of Gopāla I of the Pāla dynasty. Some idea, however, can be formed from a study of certain official designations used in the inscriptions of this age, which are either identical with or similar to those known to have been applied to persons entrusted with provincial administration in the earlier epochs of Bengal history. Thus there is the mention of an official styled *Brhadūparika*, as already stated, who, as the designation implies, seems to have acted as the Head of the *Uparikas* and in that capacity

exercised a sort of general control in all matters concerning provincial government lying in the hands of his subordinates, each of whom must have been in charge of a large administrative unit. In the Rāmganj inscription, which is outside the scope of the present inquiry, the more modest designation '*Uparika*' occurs in place of '*Bṛhaduparika*', which may suggest that the scheme of departmental control in respect of provincial administration sponsored by the earlier rulers did not find favour with Īśvaraghoṣa. The term '*Antaraṅga*' is sometimes found to stand as the independent designation of a separate official ; and occasionally it is also joined to the title '*Bṛhaduparika*' as in the Kedārpur grant of Śrī-Candra, and the Varman and Sena inscriptions. As the two titles are found grouped together, it must be understood that they are applicable to a single officer, instead of two separate ones. It may be recalled here that the epithet *Antaraṅga-Uparika* is to be found as the designation of a provincial governor mentioned in one of the Faridpur grants. The *Antaraṅga* evidently must have been an officer who was on intimate terms with the king. That such an epithet should be conferred on the head of a province can be well imagined : the stability of an empire depended on the loyalty of its provincial administrators, and a king who knows this simple fact must choose for such a responsible post one whose integrity of character and steadfast adherence to the royal line has been proved in the course of an intimate personal relationship with the monarch himself. It is interesting to note that from the evidence of the earlier inscriptions, *Uparikas* are found to have been appointed to their posts by their respective sovereigns. In the subsequent period the *Bṛhaduparika*, appointed for the purpose already specified, was a close associate of the king, in whom the latter had complete confidence. The term '*Antaraṅga*' also means a royal physician.<sup>16</sup> When the designation stands independently, it probably denotes the post of a physician attending on the king. When, however, it is attached to the title '*Bṛhaduparika*,' it may mean that the king sometimes appointed his own physician as the official head of the *Uparikas* placed in charge of provincial administration in the different parts of his territory. The occurrence of the term *Pradeśtr* in the Irdā copper-plate grant is very interesting, not only because it cannot be traced in any other inscription from Bengal, but also because the Kauṭīliya refers to it and in several passages gives useful hints as to the functions attached to the officer called by this designation. F. W. Thomas has shown that the

16. Gaudalekhamālā, p. 43, n. 1 ; also R. D. Banerji, JASB., V (N.S.), 1914 ; Ind. Cult., 1935, pp. 684-86.

evidence of the Kauṭīliya makes it amply clear that such an officer was charged with executive duties of revenue-collection and police. He also attempts to prove that *pradeśṭṛ* can be regarded as a '*nomen agentis*' of the verb *pradiśati*, 'to direct.' There is no doubt that, as such officers appear in the same group with the *Mahiṣī*, the *Yuvarāja*, the *Mantrins*, the *Purohita*, etc., they must have been regarded as belonging to one of the highest ranks among the officers of the king. The Kāmbhoja inscription omits to give many of the usual official designations; consequently, it is difficult to say whether a *Pradeśṭṛ* was not connected with provincial administration in some of its branches.<sup>17</sup>

In the inscriptions of the Senas, the lists of officers include a *Mahābhogika* as in the Mallasārul grant of the sixth century A.D. This designation is the same as '*Bhogika*' without the prefix, noticed by Fleet who interprets the word as derived from '*bhoga*', taken in the sense of a *bhukti*, a territorial term. Thus a *Bhogapati* was in his opinion a provincial governor. It appears, however, that the designation of a provincial governor is frequently given as *Uparika*. The expression *Brhaduparika* occurs along with '*Mahābhogika*' in the Bengal grants. It may be argued that although the officer at the head of the department of provincial administration in the centre may have been designated *Brhaduparika*, a provincial governor was given the title '*Bhogika*,' but this is not probable since the designation actually found is *Mahābhogika*, which seems to have been applied to the head of the *bhogikas*. Consequently, the functions of the *Mahābhogika* and those of the *Brhaduparika* will be found to be the same. Is then the *Mahābhogika* to be regarded as an official entrusted with the collection of the specific tax *bhoga*, which was one of the sources of revenue to the State? There is another probability. In the Bhumarā Stone Pillar inscription of the *Mahārājas* Hastin and Sarvva-nātha, the term *bhoga* appears in connexion with the setting up of a boundary pillar between the dominions of the two kings.<sup>18</sup> The designation *Bhogapati*, *Bhogika* or *Mahābhogika*, may, therefore, have been assumed by a delimitation officer, whose function was to examine and settle all questions relating to the boundaries of a kingdom. It is not, however, suggested here that the term *bhoga*, wherever it occurs, should be taken in the same sense (*cf. sva-bhoga-nagar-Airikina-pradeśe*—Eran inscription of Samudragupta).

Next to the *Uparikas* whose activities were controlled at the

17. JRAS., 1914, pp. 383 ff; 1915, p. 112; Hultzsch, *Corpus Ins. Ind.* I.

18. *Corpus Ins. Ind.*, Vol. III, p. 122.

centre by the *Bṛhaduparika*, were the *Viṣayapatis* responsible for the conduct of district administration. The designation '*Viṣayapati*' occurs in all the grants of the period. *Tadāyuktakas* or *Viniyuktakas*, mentioned in the Pāla grants, were also probably connected with the machinery set up for the administration of districts or similar areas. Their exact functions are not described in these inscriptions. According to Dr. R. G. Basak, it was the function of the *Tadāyuktakas* to appoint '*sevakas*' or officers of various classes if any occasion arose for the carrying out of some special duties with which they were to be entrusted. The function of the *Viniyuktakas*, in the opinion of this scholar, was to appoint persons to their specific offices. The duties assigned by him are of such a vague character that it is in the highest degree improbable that any system of government could work properly if there were a constant chance of friction with the departmental heads in regard to the right, which is ordinarily known to reside in such responsible officials, of making appointments in their own establishments and of deciding with what specific functions they are to be entrusted. There is no evidence that such a right was taken away, unless it is shown that a sort of Public Service Commission was set up by the Central Government invested with all powers relating to the appointment of officers or their subordinates.<sup>19</sup>

As to the system of village-administration, the most striking feature of this period is the non-existence of the *Aṣṭakulādhikaraṇa*, to be inferred from the absence of any reference to it in the available

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19. The Yuktas as a class of officials figure in two places of the Rock-Edict I of Aśoka, once in the company of the Rajjukas and the Prādesikas, and again as receiving orders from the [Mantri-]Pariṣat. Manu refers to the Yuktas as looking after lost properties. The Āyuktas are mentioned by Pāṇini (II, 3, 40). The Kāśikā explains the word as having the same meaning as 'Vyāpārta.' It may appear from certain references in the Kauṭīliya [cf. sarvādhikaraṇeṣu yuktopayukta-tatpuruṣāṇām II. 5; yuktaś tathā kāryavidhanu niyuktāḥ II. 9] that the Yuktas and Upayuktas (both also mentioned in the Cambay inscription of Ś. 852, Ep. Ind., VII, pp. 36-41) were employed in different departments; see for references in the Kauṭīliya and in the Aśokan epigraphy, F. W. Thomas, JRAS., 1909, pp. 466-67; 1914, 387-91; D. R. Bhandarkar, Aśoka, p. 58. The Āyukta-Puruṣas were engaged by Samudragupta in restoring conquered territories (Fleet, CII, III, p. 8). Tanniyuktakas as Viṣayapatis appear in the Dāmodarpur Plates, and Āyuktas, also connected with provincial administration, are mentioned in the Pāhārpur and Mallasārul grants. Cf. Parikara-sanniyuktaka-viniyuktakas, or simply Viniyuktakas in Chamba grant (Antiquities, pp. 120, 130); Tanniyukta in the Alina Copper plate of the year 766-67 A.D., Sanniyukta



inscriptions. 'Then, again, it is only in the Khālimpur Plates that the term '*Dāśagrāmika*' is mentioned. It is very likely that village-organization was overhauled shortly after the date of this grant. It may not be without significance that fuller information regarding local government is furnished by the Khālimpur grant than by any other inscription of the period. The grant recorded in this inscription had to be communicated among others to the *Cāṭas*, the *Bhaṭas*, the *Jyeṣṭha-Kāyasthas*, the *Mahā-Mahattaras*, the *Dāśagrāmikas*, the *Viṣayavyavahārins*, the *Prativāsins* with the *Karaṇas*, the *Kṣetrakāras* (cultivators) and the Brahmins. *Mahattaras* are mentioned in the Nālandā grant of Dharmapāla as well as the grants of the reign of Devapāla, his successor, but never again. In the subsequent records there is definitely a process of attenuation of the portion dealing with local people and other authorities, who had to be apprised of the issue of a grant made by a king. In later times it seems to have become a practice to communicate the matter of a grant to the different sections or castes of the village-population concerned. Thus from a grant of Nārāyaṇapāla it appears that amongst others who were to be informed of a royal gift were Brahmins, Medas, Andhras and all including the Caṇḍālas. In the records of the Candras, the Varmanas and the Senas (from the tenth to the twelfth century) only the Brahmins and the *Kṣetrakāras* are mentioned in place of the Medas, the Andhras and the Caṇḍālas, those others mentioned sometimes include the Brahmins and the *Kuṭumbins* (of the highest class *Mahattama* and those of the next best class—*Uttama*). It is possible to suggest that in these different inscriptions belonging to different regimes or dynasties three distinct stages are indicated in regard to the position of villagers as recognised by the state in the system of rural economy. The evidence of the Khālimpur grant shows that the village-constitution of the earlier period continued in a similar form at least up to the 26th year of Dharmapāla's reign, as is evidenced by the use of such terms as *Jyeṣṭha-Kāyastha*, *Mahattara*, and *Viṣayavyavahārī*. The Irdā copper-plate of the Kāmbojas (10th century)<sup>20</sup> is the only other inscription of the period which mentions the *Vyavahārins* with their *karaṇas*, the *Kṣakas* (*Kṣetrakāras*) in addition to the Brahmins. The institution or institutions repre-

in the Junāgarh inscription of Skandagupta of the year 458 A.D., *Āyuktakaviniyuktaka-drāṅḡika-mahattara-cāṭa-bhaṭa . . . kumārāmāty-ādīn* (Fleet, CII, p. 166) in the Māliya copper-plate of the year 572 A.D. In the *Kāmasūtra* of Vātsyāyana, the *Āyuktaka* is mentioned along with the *grāmādhipati* and the *halotthya-vṛttiputra*, son of a peasant, Benares ed., p. 282.

20. Ep. Ind., XXII, p. 150ff.

sented by these terms occurring in the Khālimpur grant in particular, probably declined as they are seldom referred to in the later inscriptions, and a village came to be regarded as the abode of Brahmins and men of other castes, including the Caṇḍālas. It appears, therefore, that village-people in general acquired more importance, not their leaders or such other influential men who had hitherto managed internal affairs with the help of local officers. During this stage the *Grāmika* flourished throughout, he carried on the functions of the official headman of the village; official control not being shared by others but remaining concentrated in the hands of the *Grāmika* must have tightened up, while the lower castes received the same attention of the Government as the higher. In the third stage a new principle seems to have emerged, according to which official recognition for purposes of a grant was withdrawn from the lower social groups and accorded to the Brahmins and the cultivating classes, which probably absorbed all the non-Brahmin castes, implying the introduction of an economic basis in the distribution of the village-people. The Kāmboja inscription mentioning tradesmen with their staffs, together with cultivators and Brahmins seems to give a complete picture of the distribution of people on an occupational basis. The *Caṭṭas* and the *Bhaṭṭas* who held posts of comparatively minor importance, not being apparently included in the lists of 'Gazetted officers' (of the rank of heads of departments or Superintendents—*Adhyakṣas* in *Adhyakṣa-pracāra*) appear to have been connected with local administration. These are mentioned in some of the earlier inscriptions also. In Kasmīr, as Vogel<sup>21</sup> points out, "Chār is the title of the head of a pargana responsible for the management of his district, for the collection of revenue and the apprehension of revenue." It may be stated here that the *Caṭṭa* or *Cāṭ* was not the head of such a wide area as a district, but it is most probably true that he had a right, if not otherwise provided, to seize agriculturists for the purpose of forced labour. The term *Bhaṭṭa* when joined with *Caṭṭa*, may be taken in the sense of an official, subordinate to the *Caṭṭa*.<sup>22</sup>

Apart from the higher officers in the military department, to which references have already been made, the inscriptions seem to mention the rank and file of the Army also. The phrase *Gauḍa-Mālava-Khaśa-Hiṇa-Kulika-Karṇāṭa-Lāṭa-sevakādīn* occurring in most of the grants of the Pālas cannot possibly be interpreted in any other way than that the different tribal elements indicated by these names were absorbed in the services of the State. The expression '*sevakādīn*' shows beyond doubt that those who are given these designations were

21 Antiquities, p. 132.

22. *Ibid.*

in the employ of the king, and they were his servants of inferior ranks, as distinguished from the *Adhyakṣas*. It is highly probable that members of the different tribes whose names are given in the above-quoted passage had all one well-known function, so that it was thought unnecessary to refer to it in detail. The *Gauḍas* were those who belonged to the home-territory of the Pālas as the latter are described as *Gauḍeśvaras*. The *Khaṣas* are mentioned in the *Bṛhatsamhitā* in combination with the peoples of the North-east.<sup>23</sup> According to Vogel<sup>24</sup> the *Khaṣas*, who played an important rôle in the history of Kasmīr, are at present represented by the Khākha tribe known in the Vitastā Valley below Kasmīr, and also in the neighbouring hill-districts. The term *Kulika*, which means the head of a guild, is most probably used here in a tribal sense like the other names in the passage. There is a proposal to connect it with 'Kunait' (ancient *Kulikagoṣṭha*)<sup>25</sup> in the upper Ravi Valley. The *Hūṇas* (descendants of those who overthrew the Gupta empire and possibly other allied hordes of barbarians), the *Karṇāṭas* (from the Deccan), the *Lāṭas* (from Kāṭhīāwar), along with the others mentioned above, viz., the *Khaṣas*, *Kulikās* and the *Gauḍas*, may have been mostly employed in the Pāla Army. The State under the Pālas found enough occupation not only for its own nationals but many of those foreigners who either voluntarily settled in Bengal and Bihār, or were driven by pressure of circumstances, such as would arise in a situation created by the defeat or surrender of an invading army, to seek shelter in those territories.—Another designation by which some local officer may have been meant is *Khaṇḍarākṣa*, mentioned in the Pāla grants from the time of Devapāla. It is difficult to say whether this term was not somehow connected with the word '*Khaṇḍala*,' occurring in some of the land grants of the period or with '*Khaṇḍa*' mentioned in the Irdā grant (*Bāḍakhaṇḍa*). If such a connection can be established, the *Khaṇḍarākṣa* will appear to have been an officer put in charge of a comparatively small area. Even in such a case it will be difficult to specify his functions and the limits of his authority. According to N. G. Majumdar, the *Khaṇḍarākṣa* was the Superintendent of repairs (cf. *Khaṇḍa-phuṭṭa-saṃskāra* . . .), but it may be stated here that the word '*rākṣa*' is not probably a suitable expression to denote such a function. It is noteworthy that in the Rānganj inscription the designation *Khaṇḍapāla* is given in place of '*Khaṇḍarākṣa*,' which may probably signify that he was the governor or administrator of a *khaṇḍa*, if this word can be taken in the sense of a unit of local government.

23. Ind. Ant., XXII, pp. 172, 181.

24. Ibid. p. 127.

25. Ibid.

The well-known administrative units of the pre-Pāla period remained in vogue during the next few centuries. In regard to the use of the term '*bhukti*,' it may be noted that the name '*Paṇḍravardhana*' by which a considerable part of Northern Bengal was called in the earlier period, was altered to '*Paṇḍravardhana*,' the older form being found in the Khālimpur Plate only. The abbreviated form '*Paṇḍra*' is to be found in the inscriptions of the Candras and the Varmans. The name of the *Paṇḍravardhana-bhukti* appears frequently in the land-grants of the Pālas and the Senas, while its place is taken by the *Paṇḍra-bhukti* in the inscriptions of the Candras and the Varmans. It appears, however, that the former name ceased to be used in the latter half of the period merely as denoting a certain limited area as required by the affixing of the term *bhukti* to it. The *Paṇḍravardhana-bhukti* gradually attained the position and dignity of by far the largest administrative division in the whole province including within its jurisdiction not only North Bengal, to which originally it must have largely corresponded, but South-East (Samatata) and East Bengal (Vaṅga) as well. The meaning technically attached to '*bhukti*' became widened in respect of *Paṇḍravardhana*, practically embracing the whole of Bengal proper exclusive of its western districts. Other *bhuktis* existing in the period were *Tīra-bhukti* (Bhāgalpur grant), *Śrīnagara-bhukti* (the Munger grant), *Vardhamāna-bhukti* (Naiḥāṭi grant), *Kaṅkagrāma-bhukti* (Śaktipur grant).—The *Viṣayas* flourishing within the limits of the same period were the *Mahantā-prakāśa-viṣaya* and the *Sthālikkaṭa-viṣaya*<sup>26</sup> (Khālimpur grant), the *Koṭivarṣa-viṣaya* (Bāngarh and Manahali grants), the *Kṛmīla-viṣaya* and the *Kakṣa-viṣaya* (Nālandā grant of Devapāla), the *Gayā-viṣaya* (Nālandā grant of Dharmapāla), the *Khāṭikā* or *Khāḍī-viṣaya* (Barrackpur grant of Vallālasena and the Sundarban copper-plate of the Śaka year 1118; cf. *Khāḍī-maṇḍala* of the *Paṇḍravardhana-bhukti*, noted in the Sundarban copper-plate of Lakṣmaṇasena), the *Suvvūṅga-viṣaya* (Tippura grant of Lokanātha) and the *Vāḍā-viṣaya* (Kamauli plate).—The term '*Maṇḍala*' does not appear to be used uniformly in its technical sense of an administrative unit. Thus when it is found in combination with the name *Vyāghrataṭi*, it does not refer to a subdivision usually denoted by the term '*Maṇḍala*,' but means a much wider area

26. The Dhulia copper-plate of Śrīcandra places the *Vallimuṇḍā-maṇḍala* and *Yolā-maṇḍala* respectively under the *Khediravallī-viṣaya* and *Ikkadāśī-viṣaya* of the *Paṇḍra-bhukti*. The Edilpur Copper-plate of the same king shows that the *Kumāratalāka-maṇḍala* was comprised in the *Sataṭa-Padmāvatī-viṣaya*. See IB, pp. 165-167.

in which *viṣayas* were comprised. This is shown by the Khālimpur Plate's reference to the Vyāghrataṭī-Maṇḍala, which included the Mahantāprakāśa-*viṣaya*. It is probable that the word *maṇḍala* has been used in this extended sense in the Nālandā copper-plate of Devapāla in which Balavarmā, the ruler (*adhipati*) of the Vyāghrataṭī-maṇḍala, the right-hand man of this king (*dakṣiṇa-bhuja ivā rājñah*) is found acting in the capacity of a *dūtaka*. As he directly received orders from the king, he cannot be supposed to have served as a subordinate of some *Viṣayapati*. The Kāmarūpa-maṇḍala mentioned in the Kamauli Plate also appears to have been a larger subdivision than a *Viṣaya*, for it seems to have comprised the Vāḍā-*viṣaya* within its jurisdiction. The Bāngarh grant, however, gives an instance of the use of this term in its purely administrative sense by referring to the Kokalikā-maṇḍala as being comprised in the Koṭivarṣa-*viṣaya*. Similarly, the Manahali grant speaks of the Halāvaratta-maṇḍala as part of the above-mentioned *Viṣaya* and the Āngāchi grant of Vīgrahapāla III of the Brāhmaṇi-grāma-maṇḍala included in the Koṭivarṣa-*viṣaya*.<sup>27</sup> The evidence of the Rāmpāl grant of the Candra family is doubtful on this point; although it gives the name of Nānya (or Nāvya-) *maṇḍala*, it does not place it under a *viṣaya* but in the Pauṇḍra-*bhukti*. The term *maṇḍala* when it means an area larger than a *viṣaya* may be said to be used in the same sense as 'deśa,' in the Gupta period.<sup>28</sup> The Naihāṭi grant refers to Uttara-Rāḍhā-Maṇḍala without assigning it to any *Viṣaya*, as being directly situated in the Vardhamāna-*bhukti*. Similarly, the Kamauli Plate of Vaidyadeva shows that the Kāmarūpa-Maṇḍala was comprised in the Prāgjyotiṣa-*bhukti* but the former is not attached to any *Viṣaya*. The term *Viṣaya* is less frequently used in the Sena inscriptions than in the Pāla, although the term *Maṇḍala* does not become correspondingly rarer. It may be surmised that the older system according to which the two terms were more or less interlinked was substantially modified. The Irdā grant of the Kāmbojas places the Daṇḍabhukti-Maṇḍala under the Vardhamāna-*bhukti*. It is necessary to add here that the name of Daṇḍabhukti is to be found in the Rāmacarita commentary and also in the Tirumalai inscription of Rājendra Cola (Taṇḍabutti). The evidence of the Irdā grant and that of the Tirumalai inscription must belong nearly to the same period.

27. Ep. Ind., XV, pp. 295 ff. The Copper-plate grant of Kāntideva supplies the name of Harikeli-maṇḍala (in East Bengal), which flourished in the eighth century.

28. On the relative meanings of the terms *bhukti*, *maṇḍala*, *viṣaya*, *deśa*, *khaṇḍa*, see Fleet, CII, III, pp. 32-33, n. 7.

If Daṇḍabhukti was the name of a *bhukti* according to the latter source, how is it that it is definitely called a *Maṇḍala* also in the Irdā grant?<sup>29</sup> Certainly the name is not that of a *bhukti* in this inscription as it is comprised in a *bhukti* itself. It may be either that the Kāmbojas had conquered a part of Daṇḍabhukti which was really the name of a *bhukti*, forming it into a *maṇḍala* for administrative purposes, or that the element '*bhukti*' in this name did not bear its usual technical signification. It may have been constituted into a regular *bhukti* sometime before Rāmapāla. It should be noticed also that *Uttara-Rāḍhā*, which is the name of a *Maṇḍala* in the Naihāṭi grant of Vallālasena, is not mentioned as such in the Śaktipur grant of Lakṣmaṇasena. It may be presumed, therefore, that it was impossible to maintain throughout a rigid system requiring the retention and preservation at any cost of the older denominations of administrative units without any change in their original meaning. There was hardly a time when the country was completely free from military operations. If one of the contending parties gained a slice of territory, it had to be brought under and co-ordinated to the scheme of administration followed in the dominion of the victor, while the vanquished would be required to alter the arrangement existing prior to this loss. Besides, purely administrative reasons also must have sometimes dictated certain readjustments.

In addition to the broad divisions denoted by the terms, *Bhukti*, *Viṣaya* and *Maṇḍala*, there were several other categories of units under the administrative system of the period. The most important among these is the unit represented by the term '*Vīthī*' which can be traced in some of the earlier inscriptions also. The Naihāṭi grant includes Svalpa-Dakṣiṇa-*Vīthī* as a subdivision under the Uttara-Rāḍhā-*Maṇḍala*, which again is comprised in the Vardhamāna-*bhukti*. In the Śaktipur inscription the largest division no doubt is the Kaṅkagrāma-*bhukti*, but it is difficult to say which of the two other subdivisions, the Madhugiri-*maṇḍala* or the Dakṣiṇa-*Vīthī*, was the larger one. But if it is assumed that the names of the different units are given in this record on an ascending scale in regard to their jurisdiction it will appear that the Madhugiri-*maṇḍala* was smaller than the Dakṣiṇa-*Vīthī*, thus showing that the inclusion of a *vīthī* in a *maṇḍala*, as noticed in the Naihāṭi grant, was not an unchangeable principle. In regard to the relation between a *vīthī* and a *viṣaya* where the latter existed, the Nālandā grant of Dharmapāla shows that it was a bigger area than the former, as in that inscription the Jambūnadi-*Vīthī* is found placed under the Gayā-*viṣaya*. This inscription does not give any of the other

29. Compare the case of Khāḍī-*maṇḍala* and Khāḍī-*viṣaya*.

current denominations, but assigns a certain village (Niguha-grāma) immediately to this *Vīthī*. As in the Nālandā copper-plate of Dharmapāla, Devapāla's grant from the same place also shows the subordination of the *Vīthī* to the *Viṣaya*, by assigning the Kumuda-sūtra-*Vīthī* to the Gayā-*Viṣaya*. Other terms which appear to be denominations of regional groupings are *Caturaka*, *Vālikā* or *Khāṭikā*, *Ṛtti* (*āvṛtti*?) and *Bhāga*. The Govindāpur grant of Lakṣmaṇasena refers to the Vetadā-Caturaka as situated in the Paścimakhāṭikā of the Vardhamāna-bhukti, from which it will appear that a *Khāṭikā* was a larger area than a *Caturaka*. The Sāhitya Parishat grant mentions three *Caturakas*, viz., the Nava-Saṅgraha-Caturaka, the La-uha-Caturaka and the Ura-Caturaka. The term *ṛtti* is found annexed to Kāntapura in the Mādhāinagar grant of Lakṣmaṇasena which locates it in Varendri in Pauṇḍravardhana-bhukti.<sup>30</sup> Thus this grant does not show what the extent of a *ṛtti* was in relation to the other units prevalent at the time. The Sāhitya Parishat grant refers to Madhu-kṣīrakā-*Ṛtti* placed under Nāvya or Nānya (—Maṇḍala?), which again was situated in Vaṅga. This grant however shows that a *Ṛtti* was larger than *Caturaka*, the latter containing a number of *Pāṭakas* (*Madhuksīrakāṇṛttāu Navasaṅgrahacaturaka Ajikulapāṭake*, etc.). The Śaktipur grant does not use the term *Ṛtti*, but it does refer to a *Caturaka*, the Kumārapura-Caturaka which included the five *Pāṭakas* of Rāghavaḥaṭṭa, Vārāhakoṇa, Vāllihitā, Vijahārapura and Dāmara-vaḍā, placing it under a *Vīthī*. Besides these there are two other terms occasionally used, viz., *Khaṇḍala* and *Aṣṭagaccha* (an area containing eight small groups?). The term *Maṇḍala* is also sometimes used to denote a group (cf. the name Udra-grāma-Maṇḍala in the Khālimpur grant). Smaller than a *grāma* was a *grāmaka* noted in the Nālandā grant of Dharmapāla which refers to the *grāmaka* Uttarāma situated in the neighbourhood of the Niguha-grāma. The Nālandā copper-plate of Devapāla furnishes the name of another administrative division, which appears to have been current in Bihār. According to this inscription the Rājagrha-*Viṣaya* contained a number of *Nayas*, such as Ajapura, Pilipiṅka and Acala. It may be significant that the term *Vīthī* is used in the case of apparently similar subdivisions of the Gayā-*Viṣaya*, also situated in the Province of Bihār. Places assuming considerable strategic importance in the military annals of the period were Pāṭaliputra, Mudgagiri (Munger), Rāmāvātī (in North Bengal),

30. The Sundarban copper-plate of Lakṣmaṇasena mentions the Kāntallapura-Caturaka as belonging to the Khādī-maṇḍala of the Pauṇḍravardhana-bhukti.

Vikramapura<sup>31</sup> and Phalgugrāma where on different occasions camps of kings were pitched (*jayaskandhāvāra*).<sup>32</sup>

It may be observed that certain well-known terms like *viṣaya* and *maṇḍala* do not occur frequently in the later Sena inscriptions. This fact together with the occurrence of several new denominations may prove that the chain of administrative units was probably lengthened to accommodate further groupings not so systematically unified before. It is also to be noted that certain geographical names became so prominent that administrative denominations were useless. Even in locating a village it was in the new circumstances found necessary to indicate its position in reference to some such important area. Thus the Mādhānagar grant shows that the Kāntapurāvṛtti was situated in Varendrī; the Edilpur grant similarly mentions Vaṅga, which is also referred to in the Sāhitya Parishat grant. The term *bhāga* occurs in the Edilpur, Madanapāḍā and Sāhitya Parishat grants, which attach this name to Vikramapura and place it in Vaṅga. It seems probable that in those days the continuity of the different grades of administrative units in their integral condition was constantly threatened by political upheavals; hence it was thought more practical to refer to the geographical position of a place than to its place in any scheme of administrative distribution liable to frequent changes and shifts.

Land occupied an important place in the revenue-system of the period. Reference has already been made to the officer designated *Ṣaṣṭhādhiḥṛta*, whose function was to levy a specified tax on the produce of the land. Other items of revenue (*pratyāya*) were *bhāga*, *bhoga*, *kara*, *hiraṇya*, *uparikara*, *piṇḍaka*. Whenever any plot of land or a village is given away, accurate details are furnished not merely with regard to boundaries but all matters relating to its economic value as well. The system of measurement shows an accuracy, which could have been possible under an administration that paid due attention to surveys of land for purposes of taxation, and also to the necessity of preserving all relevant documents bearing on the history of any assignment that might be contemplated. Every copper-plate grant was to be stamped with the Royal Seal, which must have been in the keeping of the *mahāmudrādhiḥṛta*. As regards measurement, a uniform system was followed in the particular area where the grant may

31. It seems that the royal family of the Senas had a residence at Vikramapura during the time of Vijayasena. (Upakārikā, l. 40, Barrackpore grant of Vijayasena).

32. The Mādhānagar grant was issued from a place the name of which is tentatively read as Dhāryyā-grāma.



have been situated. Thus measurement on the basis of the standard represented by the *Samatātīya Nala* was current in Samatāṭa. The use of the *Vṛṣabha-Śaṅkara Nala* was current in the days of Vallālasena, as known from his Naihāṭi grant. In some grants, however, there is no mention of any specific standard of measurement, but it is clearly stated that the *Nala* system, which was in vogue was based on the accepted unit as current in a particular locality (*tad-deśīya-saṁvyavahāra-ṣaṭpañcāśat-hasta-parimita-nalena; tatrātīya-deśa-vyavahāra-nalena*). The unit in every case must have been the *hasta* or cubit. But two points are to be specially noticed in connexion with this system of measurement. First, a standard *hasta* must have determined the unit of this measurement. The name *Vṛṣabha-Śaṅkara-Nala* shows that the *hasta* of the king Vallālasena was the unit followed, while in those cases where no such definite indication is given, it is to be understood that some fixed standard must have been followed, although it may not be known whose *hasta* supplied the unit in those instances. Secondly, with regard to the measurement of a *Nala*, the Govindapur inscription of Lakṣmaṇasena shows that it was equivalent to 56 cubits. Entire plots of lands or even villages were to be measured by the application of the *Nala* standard locally current. Thus the Barrackpur grant mentions that four *Pātakas* of land were given away as measured by the *Nala* used in Samatāṭa. The Naihāṭi grant of Vallālasena mentions the gift of a village consisting of 7 *bhū-pātakas*, 7 *dronas*, 1 *ādḥaka*, 34 *unmānas* and 3 *kākas* including dwelling places, canals and wastelands, measured by the *Vṛṣabha-Śaṅkara-Nala*. It also records the grant of a plot measuring one *pātaka*, 9 *dronas*, 27 *unmānas*, 1 *kākinakā*. The Govindapur inscription records the grant by Lakṣmaṇasena of a land measuring 60 *bhū-dronas* and 17 *unmānas* according to the standard of *Nala* current in the particular locality, measuring 56 cubits. The Tarpandīghi inscription records the grant by the same monarch of some village-land measuring 120 *ādḥavāpas* and 5 *unmānas*. Similarly, the Mādhāinagar inscription mentions a grant by Lakṣmaṇasena of a certain *Pātaka* (village) covering an area of one hundred *bhū-khādīs* and 91 *khādikas*. An earlier inscription, the Silimpur grant of the time of Jayapāladeva of Kāmārūpa, uses the two terms *pātaka* and *drona* in giving the measurements of lands (ll. 33-50) and mentions that a certain landed property yielded an (annual) income of 1000 coins (*daśaśatodayaśāsanam* ca—Verse 22). Detailed measurements are not, however, always given, but it appears that among all the rulers of this period, Vallālasena and his son Lakṣmaṇasena were very particular in supplying details regarding the grants issued by them. The minute system of measurement being connected with the measure of capacity appears to have been based

on full and comprehensive information relating to the volume of local agricultural products. An accurate survey of villages may have been completed during the reign of Vallālasena, tenure of land and other similar matters being consequently put on a sound basis, accounting for the unusual wealth of information contained in the grants of this king and those of his successor. There were complete records preserved by the State as to the income derived from land, and every holding must have been shown clearly with the taxes paid by it in the various forms noted in such records. Thus not only the measurement is given, but the income derivable from the particular land or village is also mentioned in full detail. The Barrackpur grant shows that the land given away fetched an income of 200 *Kaparddaka-Purāṇas* (silver coins). In the Naihāti grant the village given away is stated to have yielded an income of 500 such coins. The Govindapur grant yielded annually 900 *Purāṇas* at the rate of 15 *Purāṇas* to a *drona*. The grant recorded in the Tarpaṇḍighi inscription gave an income of 150 *Kaparddaka-Purāṇas* annually; the Mādhānagar grant 100 *Purāṇas* and 68 *Kaparddakas*. According to the Madanapāḍā grant, village Piñjokāsthī, divided into two parts, gave an annual income of 500 (*Purāṇas*). The Sāhitya Parishat grant refers to an income of 500 (*Purāṇas*?). The income per *Pātaka* was 50 *Kaparddaka-Purāṇas*, as stated in the Barrackpore grant; less than eight *bhū-pātakas* produced 500 *Kaparddaka-Purāṇas* in respect of the grant recorded in the Naihāti grant, which works out at the rate of something between 61 and 62 or 63 *Purāṇas* per *Pātaka*. A little over 1 *Pātaka* elsewhere gives an income of 100 *Kaparddaka-Purāṇas*, while the income shown in the Govindapur grant was 15 *Purāṇas* per *drona*. The Śaktipur grant shows that the five *Pātakas* mentioned therein together with a part of the sixth yielded an income of 500 *Kaparddaka-Purāṇas*, but that one *Pātaka* alone, viz. *Kṣetrapātaka*, gave an equal amount, thus indicating again that all *Pātakas* were not equally developed, or equal in size. The income set forth in each grant was derived from cultivators and others who paid taxes to the king in the shape of *kara*, *hiranya*, *bhāga*, *bhoga* (*bhāga-bhoga-kara-hirāṇyādi-sarva-pratyāyopapanayaḥ*;<sup>33</sup> Pāla inscriptions; *uparika* Pāla inscriptions; *rājabhāga-kara-hirāṇyādi-pratyāyasahita*—Rāmpāl; *kara-piṇḍakādi-sarva-pratyāya*—Khālimpur). The grantee was to enjoy the income which formerly had gone to the king (paid by neighbours and cultivators). In addition to these, the right to forced labour (*pidā*), that of punishing thieves (*sa-cauroddharaṇa*; probably fines imposed were a source of income),

83. See U. N. Ghosal, *The Agrarian System in Ancient India*, p. 60.

of dealing with the commission of the ten offences, are sometimes definitely mentioned as parts of the incidence transferred to the grantee. As regards the monetary system of the period, the existence of a type of silver coins, called by the name *Dramma*, is proved by a reference contained in the Mahābodhi inscription of the 26th year of the reign of Dharmapāla,<sup>34</sup> in which mention is made of the excavation of a tank at a cost of three thousand *Drammas* (cf. Greek Drachma weighing 66 grains).<sup>35</sup> The discovery of a number of silver coins with their weight varying approximately from 52 to 58 grains with the legend Śrī-Vigra[ha], Śrī-Vi or simply Śrī, including those found in 'Devapāla' temple at Ghoshrawa, show that silver coins of the weight fixed for a *Purāṇa* were in use in the Pāla period. It is quite probable that the name *Dramma* was given to this type of coinage. The restoration of the older name to the silver coins used in the dominion by the Senas who came from the Deccan is proved by the references to *Purāṇas* or *Kaparddaka-Purāṇas* to be found in their inscriptions. The Silimpur stone-slab inscription which states that a certain Brahmin named Prahāsa refused to accept 900 gold pieces (*hemnām śatāni nava-*) and the gift of land with an income of 1000, points to the use of some kind of gold currency in the eleventh century (Verse 22). The king practically had to abjure all kinds of benefit in respect of the land or village of which he made a gift. Within his fixed area the grantee was to have absolute possession of *triṇayuti*, of low (*satalaḥ*) and high lands (*soddeśa*), *haṭṭikā* (the market-place), *gocara* or *govāṭa* (grazing ground), the mango trees and liquor produced, all the land, all the water, fish, cocoanuts and salts, etc.

34 Gaudalekhamālā, p. 32.

35. Dr. D. R. Bhandarkar, Carmichael Lectures, 1921, pp. 207-210. The view that no reference to a *dramma* can be traced to a date earlier than 875 A.D. is not correct, as the Mahābodhi inscription referred to above shows. For a very early reference see Ind. Hist. Quart., 1939, pp. 65 ff. For the silver coins of the Pāla period, see V. A. Smith, Catalogue of Coins in the Ind. Mus., Vol. I, pp. 237-239; Cunningham, Reports, Vol. XI, pp. 174-81.

## LOLIMBARĀJA AND HIS WORKS

By P. K. GODE

According to Dr. A. B. Keith<sup>1</sup> Lolimbarāja's *Vaidyajīvana* is a late medical work of the 17th Century.

The *Madhyayugīna Caritrakośa*<sup>2</sup> assigns Lolimbarāja to A.D. 1633.

Mr. Krishnamachariar<sup>3</sup> states that Lolambarāja belonged to Harihara's court, but he does not state when this Harihara flourished.

Aufrecht makes the following entries about Lolimbarāja and his works :—

CC I, 546 — **लोलिम्बराज** Son of Divākara, client of Harihara, Son of Sūrya :—

—*Camatkāra Cintāmaṇi*<sup>4</sup> (med.)

—*Ratnakalā Caritra*<sup>5</sup> (med.)

—*Vaidyajīvana*<sup>6</sup>

1. *Sanskrit Literature*, Oxford, 1928, p. 511.

2. Ed. by S. Chitrava Shastri, Poona, 1937, p. 721.—This Kośa states that Lolimbarāja was the son Dinakarabhaṭṭa Joshi of Junnar (Poona District). He had married a Muhammedan girl of the name Ratnakalā. He composed a work on medicine called *Vaidyajīvana* and a commentary on the *Bhāgavata* called *Harivilāsa*. He composed some songs as well. His real name appears to have been Tryambakarāja. He calls himself "*Kavipātashah*".

3. Vide p. 216 (section 129) of *Classical Sanskrit Literature*, 1937. "To Harihara's court belonged Lolambarāja, son of Divākara a descendant of Sūryapaṇḍita. In *Harivilāsa* (Kāvya-mālā, Bombay) in 5 Cantos and in *Sundara Dāmodara* he describes the history of Kṛṣṇa ending with the death of Kaṁsa. He was a great physician and his works on medicine, written in excellent poetry, are much admired."

4. CC I, 183—"चमत्कार चिन्तामणि by Lolimbarāja. K. 212. Bik. 635, Burnell 693".

5. CC I, 489—"रत्नकलाचरित्र med. by Lolimbarāja. IO 2079, B. 4234.

6. CC I, 671—**वैद्यजीवन** by Lolimbarāja—numerous MSS.

Commentaries :—

1 by ज्ञानदेव or दामोदर K. 220.

2 by प्रयागदत्त called विज्ञानन्दकरी Oudh XI, 34.

—*Vaidyavilāsa*?(?) Khn. 88. See *Harivilāsa*.

—*Vaidyāvataṁsa*<sup>8</sup>

—*Harivilāsa Kāvya*<sup>9</sup>

—*Lolimbarājīya* (med.) Öppert II. 3316.

I shall now try to record the chronological data gathered from the available MSS. of the works of Lolimbarāja mentioned by Aufrecht in the foregoing entries.

3 by भवानीसहाय N W 582

4. by रुद्रभट्ट IO. 1906, 2071, 2180, B. 2, 240, 242, Bik. 662, NW. 591. Oudh 1876, 34. XV, 140. P. 15. Poona 306. Peters. 1. 119.

5. by हरिनाथ H. 346. Peters. 2, 197.

CC II, 146—Commentaries :

1 प्रयागदत्त Oudh XX, 252.

2 रुद्रभट्ट Peters. 4, 41.

3 हरिनाथ BL 247. Stein 190.

CC III, 128—Commentaries :

(1) रुद्रभट्ट AK 948, As. p. 185. Peters. 6. 463, Tb. 162.

(2) हरिनाथ Bd. 913. Peters. 6. 462.

Dr. Raghavan refers to the following commentaries on the *Vaidyajīvana* in a private communication dated 9th October 1939 :—(1) By Sukhānanda Yati (Ed. Bombay, 1863). (2) An elaborate anonymous Comm. (IO. 6234 and Madras Trien. 2221). (3) By Kṛṣṇapaṇḍita (2 MSS.—Mysore I, p. 365). (4) By Tātā Sūryanārāyaṇa [Madras Trien. 2844(b)].

7. CC I, 613.

8. CC I, 613—“वैद्यावतंस” by Lolimbarāja. B. 4. 244. Burnell 67<sup>a</sup>. Oppert II. 8367.” Dr. Raghavan informs me that there is one MS. of the work at Rājāpur.

CC II, 147—“Stein 190”.

9. CC I, 761—“हरिविलसकाव्य” written by order of King Harihara, son of Sūrya, by Lolimbarāja, L. 83, K. 68. B. 2, 114. Bik. 233. Katm. 7. Oudh. V, 6. NP. VIII, 16. Burnell 113<sup>a</sup>. Gu. 4. P. 10. Bhk. 27 (fr.). Oppert 3897. II, 2539. Peters. 3. 397. Printed in Pandit 2. 79. Quoted by पुरुषोत्तमदेव in वर्णदेशना ।

CC II, 236—“Ulwar 987”.

CC III, 157—“Bd. 487. IO. 2420”

(1) *Harivilāsa* \*

About *Harivilāsa* Dr. A. B. Keith<sup>10</sup> observes :—"about 1050 Lolimbarāja wrote his *Harivilāsa* which in Canto iii gives the usual descriptions of seasons and in IV of Kṛṣṇa." If Lolimbarāja wrote about A.D. 1050 a poem of the name *Harivilāsa* he must be different<sup>11</sup> from another Lolimbarāja who composed his *Vaidyajīvana* in the 17th Century as stated by Keith elsewhere (p. 511).

Aufrecht states (CC I, 761) that the *Harivilāsa Kāvya* is quoted by Puruṣottamadeva in his Varṇadeśanā. If this statement is correct it supports Keith's statement that Lolimbarāja wrote the *Harivilāsa* about 1050 A.D. because the date of Puruṣottama<sup>12</sup> as given by Prof. Rāmāvatāra Śarmā is about the 1st half of the 12th Century.

I shall now examine some of the available MSS.<sup>13</sup> of the text of

10. *Sanskrit Literature*, p. 137—Footnote :—"Ed. KM. 62. The date C. 1000 ascribed by Bhandarkar p. 20 is dealt with by Pischel (*Die Hofdichter des Lakṣmaṇasena*, pp. 37 f.). Cf. Fleet Bombay Gaz. i, 2. 563."

11. Aufrecht (CC I, 546) evidently supports the identity of the two Lolimbarājas : (1) author of *Vaidyajīvana* and (2) the author of *Harivilāsa* by including both these works under one entry.

12. Vide p. xxii of Intro. to *Kalpadrakoṣa*, Vol. I, Baroda, 1928. Sarvānanda (1159 A.D.) refers to Puruṣottamadeva in his *Amarakoṣa-ṭikā*.

13. The Tanjore MSS. Library contains 5 MSS. of the *Harivilāsa* (Vide pp. 2854 ff. of *Tanjore MSS. Cata.* Vol. VI, 1929).

MS. No. 3857—does not contain verse 96 at the end of Canto V of the printed Kāvyaṃālā Edition. This verse contains a reference to the poet as रत्नकलारमण ।

MS. No. 3858—contains the verse "श्रीमान् हामरसो...चिरम्" giving the genealogy of King Hari, the patron of the author.

MS. No. 3859—does not give the verses containing the reference to रत्न-कलारमण ।

MSS. Nos. 8860 and 8861—arc incomplete.

The Govt. MSS. Library at the B.O.R. Institute contains the following MSS. of the *Harivilāsa* :—

(i) No. 78 of 1871-72—ends —

"नानागुणैरवनिर्मंडनमंडनस्य । श्रीसूर्यसूनुहरिभूमिभुजो नियोगात् ।

त्रैलो(क्य)कौतुककरं क्रियते स्म कार्यं । लोलिंबराजकविना कविनायकेन ॥५४॥

इति श्रीमत्सूर्यपंडितकुलालंकारहरिहरमहाराजोद्योतितलोलिंबराजविरचिते हरिविलासे महाकाव्ये

कंसवधो नाम पंचमः सर्गः.....

the *Harivilāsa* as found in the Kāvya-mālā Edition (1895) Part XI (pp. 94 to 133). This examination may give us some dates of the MSS. of this poem as also the date of composition of the poem as recorded in the MSS. :—

Date of the copy is recorded as “रसवेदेपुभूशाके १५४६” = A.D. 1624.

(ii) No. 467 of 1884-87.

(iii) No. 468 of 1884-87 — “हरिविलासः संपूर्णः ..... किं ल्यक्त्वेत्यारभ्य तदास्तां चिर-मित्यन्तं पद्यद्वयं हरिविलासमुद्रणान्तावसरे श्रीहरिचन्देति प्रसिद्धमहाधनिकपुस्तकागारोपलब्धं ततश्च हरिहर-महाराजस्य पितामहो हामरसशर्मा गयागिरिनिवासी मौन्युपनामको भार्गवगोत्रीयोऽवगतः जनौ च हरिहर-महाराजस्य येल्हाम्बिकेति भूमिकायामनुक्तमपि स्मर्तव्यमिति श्रमिति” ।

(iv) No. 487 of 1887-91—does not contain verses 96 and 97 at the close of Sarga V (printed text). It does not contain the two verses beginning with “किं ल्यक्त्वा” and ending with “चिरम्” found in some MSS. as substitutes for verses 96 and 97 of the printed text.

(v) No. 204 of 1879-80—does not contain verses 96 and 97 referred to above. It does not contain the two verses beginning with “किं ल्यक्त्वा” etc. ending with “चिरम्” । It ends as follows :—

“काव्यं हरिविलासाख्यं ये पठिष्यन्ति केचन ।

तेभ्यः श्रीहरिरत्रैव द्रव्यं दास्यति दैन्यहृत् ॥१॥

शके मिते बाणनभः शरं दुभिः सुभानु संवत्सरकोत्तरायणे ।

अमोघमासस्य च शुक्लपक्षे कलौ कृतं काव्यमिदं जगन्मुदे ॥ इति । हरिविलासः ॥

The above verse gives Śaka 1505 = A.D. 1583 as the date of composition of the poem (Vide IHQ., Dec. 1936 pp. 719-20 of Mr. Patkar's article).

The date of copying of the MS. is “संवत् १६७९” “शाके १५४८” = A.D. 1622-3.

(vi) No. 377 of 1884-86.—This MS. ends as follows :—

“किं ल्यक्त्वा वसतिर्बलिक्षितितले पातालमेवाश्रितं

भो भोगोत्थर हंत तत्र सततं मां क्लेशयन्त्यर्थिनः ।

आस्तौकोपिहरिगयाचलगिरौ क्षमापालचूडामणि-

स्तेनार्थिप्रकरः कृतो धनद्वन्द्वच्छाधुना त्वं सुखं ॥५६॥

हरिराजप्रतापार्कप्रतप्तांगौ दिगंगना ।

दिगांका वीजयंतीव कर्णतालैः पुनः पुनः ॥५७॥

The foregoing examination of the MSS. of the *Harivilāsa* gives us the following chronology :—

A.D. 1583—Date of composition recorded in a verse found in two MSS. at the B.O.R. Institute, one of these MSS. being copied in A.D. 1622.

A.D. 1622—Date of MS. (No. 204 of 1879-80).

A.D. 1624—Date of MS. (No. 78 of 1871-72).

In the *Kāvyamālā* Edition of this poem we find the following verses<sup>14</sup> before the last verse “नानागुण....कविनायकेन” :—

श्रीमाहारसौभवद्विजाकुलालंकारचूडामणि-  
गंगा निर्मलमौनमार्गवकुले तस्याद्विपुण्डितः ।  
आसीद्वास्य सुभःसुरःसतकृती येल्लंकायां चिरा-  
ल्लेभे श्रीहरिनाम रत्नमवधूत(१)तदास्तां चिरं ॥५८॥  
नाना गुणै.....लोलिम्वराजकविना कविनायकेन ॥५९॥

इति श्रीमत्सूर्यपंडित.....पंचमः सर्गः ॥

काव्यं हरिविलासाख्यं ये पठिष्यन्ति पंडिताः ।  
तेभ्यः श्रीहरिरत्रैव द्रव्यं दास्यति दैन्यहृत् ॥१॥  
शके मते बाणनभः शरदेंदुभिः १५०५  
सुभानुसंवत्सरकोत्तरायणे ।  
अमोघमाघस्य च शुक्लपक्षे  
कलौ कृतं काव्यमिदं जगन्मुदे ॥२॥”

The above colophon is important as it contains (1) the genealogy of the author's patron from King हरि of गयाचलगिरि and (2) the date of composition of the poem viz. 1505=A.D. 1583 found in MS. No. 204 of 1879-80.

14. The editor of the *Kāvyamālā* states that in some MSS. the following two verses are found in place of verses 96 and 97 adopted by him in the printed text :—

“किं त्यक्त्वा वसतिं बले क्षितितले पातालमेवाश्रितं  
भो भोगीश्वर हन्त तत्र सततं मां वलेशयन्त्यर्थिनः ;  
अस्ते कोऽपि हरिर्गयाचलगिरौ क्षमापालचूडामणि-  
स्तेनार्थिप्रकरः कृतो धनद्वद्धच्छाधुना त्वं सुखम् ॥



“सुजनैः कुजनैरपि रत्नकलारमणस्य कवेः कविताश्रवणात् ।

रमणीभणितं मुरलीरणितं भ्रमरीभणितं तृणवद्गणितम् ॥ ६६ ॥

अतसी कुसुमोपमेयकान्तिर्यमुनाकूलकदम्बमूलवती ।

नवगोपवधूविनोदशाली वनमाली वितनोतु मङ्गलानि ॥ ६७ ॥

These verses are not found in any of the B.O.R. Institute MSS. including MS. dated, A.D. 1624 (No. 78 of 1871-72). Verse 96 contains a reference to the poet as **रत्नकलारमणस्य कवेः** i.e. as husband of **रत्नकला**, which is significant in view of the MS. of **रत्नकलाचरित** (med.) recorded by Aufrecht viz. IO. 2079 and B 4. 234.

It is possible to surmise that the verses 96 and 97 found in the Kāvya-mālā edition of the *Harivilāsa* and containing the epithet **रत्नकलारमण** with reference to the poet are a later interpolation.

## (2) Commentaries on the Harivilāsa

MS. No. 182 of 1902-07.—This is a MS. of a commentary on the 1st Sarga of the *Harivilāsa* (by Raghunātha) called Subodhinī. Raghunātha states that our poet Lolimbarāja was a resident of Junnarapattana or the town of Junnar and was an incarnation of the goddess of the

श्रीमान्दामरसोऽभवद्द्विजकुलालंकारचूडामणि-

र्गज्ञानिर्मलमौनिभार्गवकुले तस्माद्रविः पण्डितः ।

आसीत्तस्य सुतः सुरासुरकृतिं येल्हाम्बिकायां चिरा-

ल्लेभे श्रीहरि नाम रत्नमवनीमध्ये तदास्तां चिरम् ॥”

The genealogy of the patron of the author of the *Harivilāsa* as given in the above verses is as follows :—

हरि ( King at गयाचलगिरि )

|

दामरस ( a द्विज of मौनिभार्गवकुल )

|

रविपण्डितः

|

× येल्हाम्बिका

|

Son

|

हरि ( patron of लोलिम्बरज author of हरिविलास )

place Satyaśṛṅga.<sup>15</sup> It appears from this statement that the commentator Raghunātha was aware of the association of Lolimbarāja with Junnar in the Poona District but as we don't know the date of Raghunātha it is difficult to determine the exact antiquity of this association.

MS. No. 425 of 1884-87.—This is a commentary by Bhaṭṭa Kamalākara, son of Caturbhujā. It is called *Sāhitya Saccandrikā*.<sup>16</sup> As the MS. is fragmentary it is difficult to make any immediate use of it for chronological purposes.

I have noticed the above commentaries<sup>17</sup> on the *Harivilāsa* briefly because Aufrecht records only two commentaries on this poem, only one of which is available to me viz. that by Kamalākara noticed above.

(To be continued)

15. Vide verses 4 and 5 on folio 1 which read as follows :—

“सत्यशृङ्गनिवासिनी भगवती लीलावतारोभव-  
च्छ्रीमज्जुनरपत्तनाधिवसितिलोदिबनामा कविः ।  
तत्काव्ये भगवत्प्रिये हरिविलासाख्ये मया टिप्पणं  
भट्टश्रीरघुनाथशर्मविदुषा संतन्यते कौतुकात् ॥४॥  
हरिविलासकाव्ये श्रीलोदिबरजकवेः कृतौ ।  
नाम्ना सुबोधिनी व्याख्या रच्यते छात्रतुष्टये ॥५॥”

On folio 12 the commentator explains “लोदिबनां” “वैद्यानां” and quotes a lexicon in his support :—“लोलिमस्तु चिकित्सकः इति केशवः” । In the Colophon he refers to his guru श्र्यंबकराज ( “श्रीसत्सङ्गश्र्यंबकराजगुरुचरणप्रसादे प्रेरित” ) ।

16. On folio 14 we have the following Colophon :—

“इति श्रीमच्चतुर्भुजसुतभट्टश्रीकमलाकरविरचितायां साहित्यसत्त्वचन्द्रिकायां हरिविलासव्याख्यायां प्रथमसर्गः समाप्तः ।  
Colophon of II Sarga reads as follows :—

“इति श्रीमच्चतुर्भुज.....द्वितीयः सर्गः । भूमंडलमध्यवर्त्तितत्तनवरत्नपरसेहराभिधानपुर-  
विरचिबवसतिना श्रीगौडक्षतिसुखंशभूषणज्योतिर्विन्दसिंहतत्पुत्रलिवाभिधानतत्पुत्रहरनाष्टास्तत्पुत्रादिनकरस्तत्पुत्र-  
ज्योतिर्विद्विश्रामतनुसंभवेन न्यायाधिपारकलनतत्परेण मातृ हरिव्याई कुक्ष्युद्धवेन भ्रातृभनाहनाभिधानकनिष्ठ-  
भ्रात्रा भट्टकमलाकरेण कृतोऽयं लेखः परोपकृतये स्तोत्रयोगाय लक्ष्मोनाराय(ण)चरणकोकनदोहसाय च” ।

17. Vide Aufrecht CC II, 183.—Commentaries on the *Harivilāsa* :—

(i) By कमलाकर Son of Caturbhujā, Rgb. 425 (=No. 425 of 1884-87)

(ii) By यादवाकृत Son of केशवाकृत BL. 115 (1), 116 (2); it is called

भावार्थदीपिका । Raghunātha's Commentary on this poem was not known to Aufrecht.



## IRANIAN AND SANSKRIT\*

By BATAKRISHNA GHOSH

The Iranians—particularly the eastern Iranians whose ancient *culture* and *language* are represented by the Avesta—were in both these respects a sister tribe of the ancient Indo-Aryans. Common Indo-Iranian linguistic innovations have been already discussed in LIS. Here we propose to discuss the principal characteristics of the Iranian group as a whole as also those of its principal ancient dialects.

Iranian research of the present century has been chiefly devoted to middle and modern Iranian dialects, and it received a tremendous impetus from the priceless things discovered in Central Asia by the archaeological missions organised by almost every civilised country. The results of Iranian research in the previous century were pooled and presented in a strictly scientific form according to a co-ordinated plan in the famous Iranian Grundriss edited by Geiger and Kuhn. But the two world-wars we have already experienced have rendered impossible that international collaboration which is necessary to deal with the new materials gathered in the present century from the different countries of the vast area extending from the border of India, Tibet and China to Elephantine in Egypt. Prof. Andreas of Göttingen, than whom there was no one better qualified to undertake the task of synthesising and co-ordinating the innumerable pieces of research work done in the field, has died practically without publishing anything. A host of new, but by no means lesser, lights, headed by Benveniste, Nyberg, Henning, Lentz, are carrying on heroically the noble tradition established by Burnouf, Darmsteter, Geldner, Bartholomae and Andreas, the living link between the past and the present being Prof. Wilhelm Geiger. What is needed, however, is an entirely new Grundriss on the old model, presenting along with the old the new material gathered in course of the last half-century, but the present world is in no mood even to conceive of such a comprehensive work.

Like every ancient Indo-European tribe, but more than any other, the Iranians on their first appearance on the stage of history present a baffling picture

\* This paper is a chapter of my forthcoming book "Survey of Indo-European Dialects". Students who might care to read it are expected to have first read my "Linguistic Introduction to Sanskrit" ( LIS. ).

of mutually irreconcilable peoples and cultures ranging from the devastating hordes of Scythian barbarians in the north to the highly civilised Persians in the west and the Zarathuštrians in the east. In the case of Iranian it is of supreme importance to bear in mind that fundamental fact of comparative philology that linguistic unity is *per se* no proof of racial or cultural homogeneity. Indeed, it is almost certain that those restless peoples of the central belt of Asia and southern Russia described in lurid colours by the antique writers of Greece, who for want of a more appropriate designation vaguely called them *Skuthoi*, were not a single and homogeneous people. They were simply the children of the steppes living in scattered tents, with a form of monarchical government developed already before the days of Herodotos; but still largely nomadic in the habits of life. They were brave horsemen but utterly cruel—not above drinking the blood of the enemy killed in battle. Not being pinned to the soil and having nothing to lose through migration, these sturdy centaurs were prompt to move in all directions whenever food became scarce. Through archaeological excavations in southern Russia it has now been established that theirs was a pre-eminently horse-civilisation. When a chief died his horses were buried with him, and the horse is the chief motif on the excavated Scythian art-objects. The little that we know of their religion from the narratives of Greek historians reveals no characteristically Iranian—or even Indo-European—trait. To all appearance their Aryanism was only skin-deep. Their language is known to us only from a few proper names and glosses: these however are truly Iranian. With this we shall take leave of the north-Iranian Scythians. Of modern Iranian dialects Ossetic is supposed to be the best representative of Scythian.

The ancient Iranians whose languages we propose to specially discuss in this chapter fall naturally into two groups according as they belong to the east or the west. The most important and ancient east-Iranian dialect known to us is of course Avestan, which should have been the language of Arachosia or Drangiana, and which holds exactly the same position in Iranian as Gothic in Germanic, though however the Old Persian inscriptions of the Achæmenian emperors present us with an absolutely truthful picture of a west-Iranian dialect almost as old as the oldest Avestan. Strictly speaking, the language of the Old Persian inscriptions is a south-west-Iranian dialect whose north-western counterpart was Median—of which however we know very little: the distinctive features of Median will be described in connection with Old Persian. But these were by no means the only living Iranian dialects in the sixth century B. C. Dareios in the Naqš-e-Rustam inscription mentions no less than twenty-nine peoples and provinces of his empire extending from Carthage (Karkā) to Gān-

dhāra (Gadāra).<sup>1</sup> It is almost certain that every one of the peoples of the provinces mentioned in this list spoke a different language, for otherwise they would not have been regarded as a different people at all, and neither their province as a different province. Now excluding the obviously non-Iranian names in this list we get quite an imposing number of Iranian provinces : Māda (Media), Xuvaja (Susiana), Parθava (Parthia), Haraiva (Aeria), Baxtris (Bactria), Suguda (Sogdiana), Xuvārazmiš (Chorasmia), Zranka (Drangiana), Hara-xuvatiš (Arachosia), θattaguš (the Sattagydes), Sakā haumavarkā (Hauma-preparing Sakas), Sakā tigraxudā (Sakas with pointed caps), Sakā tyaiy taradraya (Sakas on the other side of the ocean, i.e., the Sakas in Europe). But Darcios' list is not complete, for he omits to mention not only other well-known Iranian tribes such as the Hyrkanians, but also the Syrians, Phœnicians etc. who are known to have been included within his empire.

The three ancient Iranian countries with which we are chiefly concerned here, namely, Media, Persia and the land of the Avesta, are curiously connected with each other through Zarathuštra who is as much a historical personality as his patron the Achæmenian monarch Vištāspa (600 B.C.): a native of eastern Iran,<sup>2</sup> Zarathuštra had to seek the protection of the Persian court, the Achæmenian rulers of which had sort of inherited the empire of the powerful Medians<sup>3</sup> mentioned already by Salamanassar III of Assyria in an inscription of 835 B.C. Vištāspa is also the pivot-point in the Avestan history of eastern Iran which is certainly not less worthy of credence than our Purāṇas. According to the east-Iranian dynastic history as reconstructed by Christensen<sup>4</sup> on the basis of the data of the Avesta, there were eight Kavis (princes) in eastern Iran covering a period of five generations; and after the death of the last Kavi Haosravah there followed a period of unknown length during which the power was divided among several Kavis, one of whom was Vištāspa. Historians are still sharply divided in opinion as to whether this Vištāspa was the father of the Achæmenian Darcios. Eduard Meyer, for instance, considered it to be one of the major mysteries of history that anyone should think that the two Vištāspas might be one and the same person (*Geschichte des Altertums*, third vol., second ed., p. 110, f.n. 3). On the linguistic side, Meyer was indirectly

1. Persia has not been mentioned in this list of tribute-paying provinces and peoples, because the Persians themselves, as conquerors, paid no tribute to the king.

2. According to the tradition of the Parsees, however, he was a Median.

3. It is not quite clear how the Median empire passed on to the Achæmenians of Persia. For the account of the Greek historians, see *Historians' History of the World*, Vol. II, p. 576.

4. *Kulturgeschichte des alten Orients*, dritter Abschnitt, erste Lieferung, p. 218.

supported by no less an authority than Bartholomae in whose opinion Zarathuṣtra should have lived about 1000 B.C. But in defence of this identification it may be urged that it fully agrees with the traditional date of Zarathuṣtra and does not actually militate against any of the established facts of history. To object to the identification on the ground that the great Vištāspa could not have been described as a mere Kavi would be tantamount to refusing to see beyond the bare words of the ancient oriental genealogists whose accounts are otherwise not taken seriously at all.

It may be reasonably asked, however, why should the later Yaṣts be regarded as authentic when they are describing the history of the earlier age of Zarathuṣtra. But we have to remember that the main body of the Yaṣts, in which the Gāthās are embedded much as the Mantras of the Ṛksamhitā are embedded in the later Brāhmaṇas, though certainly later than the Gāthās composed by Zarathuṣtra himself, are not so very late after all, for there is ample evidence to prove that the redaction of the Yaṣts was completed already in the first half of the fourth century B.C. It could not have taken place later, for the Avestan language had assumed a frankly middle Iranian Pehlevi character already in the third century B.C. as the Parthian coin-legends clearly prove. But it is equally improbable that the redaction of the Yaṣts in their present form took place earlier than 400 B.C. The eulogy of Anāhitā in st. 126-129 of the Ardvīšūr Yašt is considered by eminent historians like Eduard Meyer to be nothing but an objective description of an image of the goddess built after a west-Asiatic model. But it is a fact of history that statues of Anāhitā were first erected by the order of Artaxerxes II who reigned from 404 to 361 B.C.<sup>5</sup>

There are moreover weighty arguments to prove that the Yaṣts, though later than the Gāthās, are on the whole older than the latter in *contents*.

Zarathuṣtra was a prophet, and like every prophet he was also a reformer. But he was not a reformer of the mild type like Buddha and Christ who on the whole accepted the society into which they were born. Zarathuṣtra wanted a complete break with the past and Eduard Meyer has aptly compared him with Muhammad in this respect. Can it be that the stirring appeals of Zarathuṣtra energised the Iranian tribes and set them on the war-path in the same way as the exhortations of the prophet Muhammad shook the Arabs out of their age-long slumber and within a few years transformed them into a nation of heroes whose military achievements are still unequalled in history? Whatever that may be, it is however undeniable that Zarathuṣtra and Muhammad were kindred spirits. Both of them were distinguished by absolute faith and

5. See Christensen, *Ibid.*, p. 216,

complete absence of doubt. Yet, from the view-point of immediate result, Zarathuštra failed where Muhammad succeeded, perhaps because the Iranian prophet, unlike the prophet of Islam, had to cultivate a soil thickly overgrown with an older culture.

Zarathuštra preached his own reformed religion in the Gāthās. But the Yašts, which are not Zarathuštra's own words, reveal a state of religion and society which prevailed in Iran long before the advent of the prophet, and that even though the pre-Zarathuštrian Yašts had to undergo a fundamental revision at the hands of the Zarathuštrians at a later date. Iranian religion as described by Greek observers does not at all agree with the Zarathuštrianism of the Gāthās; but it fully agrees with the state of society revealed by the Yašts if only the obviously Zarathuštrian accretions are ignored. On the other hand, the early Iranian religion which in this way may be reached across the barrier of Zarathuštrianism becomes quite easy to understand and explain also from the view-point of the Vedas.

The first sign of the forefathers of the Indo-Iranians may be detected in the name of the sun-god Šurīaš of the Kassites who ruled in Babylon from the eighteenth century B.C. (see LIS., p. 50). Excavations at El-Amarna in Egypt have proved that about 1400 B.C. various dynasts with typical Aryan names (such as Artamanya, Yašdata, Šuwardata, Šutarna etc.) were ruling in the region of Syria and Palestine. The Mitanni-documents of the same period discovered at Boghaz-köi mention the Vedic gods Mitra, Varuṇa, Indra and the Nāsatyas. These names clearly suggest that already in the fifteenth century B.C. the forefathers of the Indo-Aryans had learnt to worship side by side with the old Indo-European nature-gods (the *Daivas*) a new type of abstract deities distinguished by magical power and potency whom they began to call *Asuras*, perhaps after the name of the tutelary deity of Assyria which became a generic term of designation with them.<sup>6</sup> In the Ṛgveda, Varuṇa and Mitra are the foremost representatives of the Asura-gods, just as Indra and the Nāsatyas are the leaders of the Deva-gods. The early religious history of India and Iran is full of the antagonism between the Devas and the Asuras, but it is significant that at Boghaz-köi gods of both the camps were invoked together in connection with a peace-treaty. This would suggest that the antagonism between the worshippers of the older Devas and the later Asuras had not yet begun in the fifteenth century B.C.

6. just as Lat. *Caesar* became a generic term of designation for emperors among the Germans—"Kaiser." To derive *asura* from *asu* is at least as bad as deriving it from *sura*.



But Zarathuštra in his Gāthās continually curses and condemns the worshippers of the Devas whom he represents as cruel and nomadic robbers, while he exhorts the Asura-worshippers with the same insistence to devote themselves to the peaceful pursuits of agriculture and cattle-breeding. It would seem that long before the days of Zarathuštra the Aryan society had split up into two antagonistic cultural groups: the main body of the nomadic and vigorous animal-sacrificing Deva-worshippers, spoiling for battle and adventure, left their more civilised Asura-worshipping brethren back in Iran and pushed forward into India, and the latter thus relieved of embarrassing association with unruly kindreds had a better opportunity to develop their distinctive culture in Iran. But Daiva-ism was not dead in Iran with the secession of the forefathers of the Indo-Aryans. That even so late as 600 B.C. it had a firm hold on the Iranain people is clear from Zarathuštra's own words. What is more, the religion of the common people as can be guessed from a critical sifting of the Yašts, was largely Daivic. Indra, the chief representative of the Daiva-gods, had to become an obscure demon no doubt, but all his attributes were adroitly transferred to Mithra, who, significantly enough, is not at all mentioned in the Gāthās. The Haoma-cult has no place in Zarathuštra's reformed religion, and yet Avestan religion is as much of a Soma-cult as the religion of the Vedas. All this clearly shows that the religion of the east-Iranian *people* remained essentially pre-Zarathuštrian in character, closely resembling the religion of the Vedas. In western Iran also, as Prof. Benveniste has conclusively proved from the accounts of ancient Greek authors, the religion of the people was of the same pre-Zarathuštrian type. Thus it is clear that Zarathuštra was not able to destroy at a stroke the cultural unity of India and Iran. In fact it was never destroyed. Buddhism spread far and wide in Iran, and under the Indo-Scythian kings various Iranian elements found their way into the cultural life of India. And it was in India again that the harassed Zarathuštrians, true to their ancient culture, found at last a haven of peace and rest.—A brief account of pre-Zarathuštrian and Zarathuštrian religion and culture of Iran, based on the Yašts and the Gāthās respectively, will not therefore be quite irrelevant to our present purpose, for it will show that the linguistic affinity between India and Iran is not a mere accident.

In pre-Zarathuštrian Iran, as also in Vedic India, the family (*nāfa*) with its separate residence (*nmāna*) was the smallest social unit. The families in their turn were constituent members of the sept (*taoχman*) with its own village (*vis*). The next higher unit in the social organisation was the clan (*zāntu*) with its own district (*šoiθra*). The highest socio-political concept was however that of the *dahyu*. The Iranian society of the Yašts was divided into three

classes : *āθravan* "the priest", *raθaēštar* "the warrior" and *vāstrya ššuyant* "the cultivator." In the Zarathuštrian Gāthās however these are called *airyaman*, *χvaēthu* and *vərəzāna* respectively (Meillet).

This pre-Zarathuštrian society was heroic in spirit and outlook. Neighbouring peoples are constantly at war and frequently ranged in battle-array against one another. The Avestan authors took evident delight in describing the weapons of war, and treacherous enemies are condemned by them to punishments almost as cruel as those inflicted by Assyrian conquerors. The ideal man is the sturdy warrior, armed with bow and lance, chasing in his horse-drawn chariot the enemy defeated in battle. In peace-time he resides in a towering castle with many windows supported by stout posts and pillars. A large number of men and animals are housed in his castle, which at all times offers food in plenty. Beautiful women with long fingers are waiting within to receive their lord. Merchants bring to him from foreign countries gold, silver, and precious clothes. The princes perform sacrifices to the gods on hills, in woods, or by the side of rivers.

It will be clear from this that the Yašts represent the epic age of Iran, when the sheer joy of living was regarded as sufficient justification for life. But Zarathuštra was no gay troubadour. He frowned darkly on the elegant utilities of the idle rich, for the centre of his interests was the poor tiller of the soil. The non-cultivator (*avāstrya*) appears in his Gāthās as the natural enemy of the people. The soul of the bull speaks in them in moving terms of the oppression of evil-doing liars (i.e. followers of false prophets). Yet it is clear that the non-cultivators too, like the cultivators, were under the rule of the same east-Iranian Kavis, one of whom, viz. Vištāspa, was the friend and patron of the prophet. Zarathuštrian society was thus sharply divided into two communities, and the difference in their modes of earning livelihood was not the only difference between them. The non-cultivators probably adhered to the Daēva-religion, and the Karpans and Usigs, cursed and condemned by Zarathuštra, were their priests. What is more, even among the Kavis there were men who supported these false prophets. That is why the Kavis and Karpans are represented in the Gāthās as enemies of the Ahura-religion of which Zarathuštra was the prophet. In bitter terms he condemns the orgiastic festivities at which the Daēva-worshippers, intoxicated (with Haoma), offered bloody sacrifices to their gods, extinguishing amidst shouts of revelry the life of the innocent bull (Yasna 32. 12-14).

The religion preached by Zarathuštra, like the religion of the R̥gveda, was indeed marked by a pronounced tendency towards monotheism, but this monotheism was never achieved. The conception of a universal spirit is absent, and

evil is always sharply distinguished from good. Ahura Mazdāh is not the only god, though he is the creator and sustainer of the world of the good. He is also the father and creator of the other gods and goddesses, who as his agents and advisers have to carry out his will. Six godly personages are closely associated with Ahura Mazdāh : *Vohu Manah* ("good intention"), *Aša Vahišta* ("the best truth"), *Xšaθra vairyā* ("good government"), *Spənta Ārmaiti* ("sacred piety"), *Haurvatāt* ("welfare") and *Amərətāt* ("immortality"). Another divinity called *Spənta Mainyu* ("sacred spirit") is also mentioned along with the other six, but he is evidently a particular aspect of Ahura Mazdāh himself as the enemy of the evil spirit. In post-Gāthic texts these seven satellites of Ahura Mazdāh are lumped together as *Aməša Spəntas*, and it is usually, though not unanimously, believed to-day that in origin they were identical with the Ādityas of Vedic mythology.

Mazdāh is the Ahura par excellence, and very probably he is none but our Varuṇa under another name. As Darmsteter (SBE. IV. p. lii) says, he is not more different from the great Asura, Varuṇa, than Zeus is from Jupiter. He is at all events endowed with all the qualities and characteristics of the Vedic Varuṇa. Why an honorific epithet—*Ahura Mazdāh* literally means "lord wisdom"—was substituted by Zarathuštra for the old proper name "Varuṇa" has never been fully explained. Perhaps he thought the old designation was tainted through association with Daivic deities in older times—in the age of Boghaz-köi for instance! If that was his reason then it must be admitted that the Indo-Aryans were more tolerant than their Iranian kinsmen, for they changed neither the name nor the position of the Asura-god Varuṇa. Indeed, the Asura-gods fared much better at the hands of the Indians than the Daiva-gods with the Iranians. Daiva-names like Indra, Nāsatiya are not at all mentioned in the Gāthās, though, however, they occur in later Avestan texts as designations of demons. The Daiva-gods are in many cases almost exact opposites of corresponding Asura-gods. Thus *Vohu Manah* is confronted by *Aka Manah* ("evil intention") in the Daiva-world, and *Spənta Mainyu* by *Anra Mainyu* (Ahriman). It is evident from these clear indications that the uncompromising reformer with Messianic zeal extended even to heaven the antagonisms of this world which hurt and moved him. He imparted to the religion of Iran that characteristic trait of elaborate dualism which in the early centuries of the Christian era was spread far and wide through Mithraism and Manichaeism.—Such is in brief the cultural history of the ancient Iranians whose languages we shall now try to describe in this chapter. Under the Achaemenids the Persians developed a form of despotic Imperialism the like of which the world has never yet seen. But this Imperialism was never absolutely centralised, for the Achaemenian empire had three capitals, viz. Persepolis (Persia), Susa

(Elam) and Egbatana (Media). Nor were the conquered peoples callously oppressed by them, for the main plank of their Imperial policy was to keep peace with the gods of the other peoples, whom, gods themselves, they graciously recognised as their equals. Absolute religious toleration therefore prevailed within their vast empire.

Like the Germanic and the Italo-Celtic languages of Europe, the Iranian dialects were characterised by an expiratory stress accent. The result has been similar though not same: occlusives have become more and more spirantised, but final syllables were not necessarily lost.—It will be convenient for our purpose to begin with an enumeration of the principal characteristics common to both eastern and western Iranian which mark them off from ancient Indo-Aryan:—

1. I.-Ir. *z* after *s* ( $\leq$  I.-Ir. *š*, *šh*, *ž*, *žh*), changed into *p* *b*, but disappeared after *f*, *b*; cf. Skt. *dśva*: Av. *aspō*, Skt. *lavyāmi*: Av. *zbayā* (I.-Ir. *\*žhuat-*) the disappearance of *z* after labials may be observed, for instance, in Av. *āfante*  $\leq$  I.-Ir. *\*ā-apya-* (Reichelt, § 143). In the Old Persian inscriptions *sp*  $\leq$  *sz* is found only in Median loan-words such as *aspa-* (Skt. *dśva*), in truly Persian forms it being represented merely by *s*, cf. *asa-* (Benveniste, § 113).

2. Both in Avestan and Old Persian I.-Ir. *r* usually becomes *ar*; thus Av. *parštam*: Skt. *pyśtāh*, O.P. *a-garb-āyam*: Skt. *gybh-āyāti* etc.

3. The loss of Indo-Iranian aspirated tenues is another common feature of eastern and western Iranian. They have usually become surd spirants like the unaspirated tenues (see no. 5); thus Av. *xamba*: Skt. *kumbhā*  $\leq$  *\*khumbhā*, Av. *aθa*: Skt. *ātha*, Av. *safam*: Skt. *śaphām*. Similarly O.P. *-xauda* (in *tigra-xauda*): Av. *xaoza-*, O.P. *yaθa*: Skt. *yāthā*; an Old Persian example of *f*  $\leq$  *ph* cannot be found.

4. Already in primitive Iranian the Indo-European sonant aspirates had become pure sonants. Thus Av. *garəmə*: Skt. *gharmā-*, Av. *bandəm*: Skt. *bandhām*, Av. *brātā*: Skt. *bhrātā*. As for Old Persian, cf. *drauga*: Skt. *drógha-*, *adā*: Skt. *ádhat*, *abiy*: Skt. *abhi*.

5. Indo-Iranian unaspirated tenues assumed the aspect of surd spirants before consonants (*x š θ f* for *k č t p*). Thus Av. *yuxta-*: Skt. *yuktā-*, Av. *šyaoθnəm*: Skt. *cyautnām*, Av. *maqθrō*: Skt. *mántra-*, Av. *drafsō*: Skt. *drapsā-*. Similarly O.P. *θuxra-*: Skt. *śukrá-*, O.P. *fra*: Skt. *prá* etc. In Old Persian the spirantisation of occlusives had gone much further and was not confined within the limits applicable to Avestan. Moreover some spirants derived from Indo-European unaspirated tenues have altogether lost their original aspect through special laws of combinatory sound-changes obtaining in Old Persian. Thus *θr* ( $\leq$  *tr*) has here become *ss* (a. hard *s*); cf. O.P. *xšassam*: Av. *xšaθrənm*:

Skt. *kṣātrām*, O.P. *puṣsa-*: Av. *puθrō*: Skt. *putrā-*. In Median, primitive Iranian *θr* remained unchanged; cf. *Miθra*, which is the only form of the word also in Old Persian; but, curiously enough, the Elamite version presupposes the truly Persian form *\*missa* (Benveniste, §§ 106-107). In the inscriptions *ss* ( $< \theta r < tr$ ) is represented by mere *s*; but unlike the usual *s* ( $< I-Ir.$  *s*) it does not change into *h* before vowel, as for instance in *dārayavahuš* "Darcios," *ahura*: Av. *ahurō*: Skt. *āsura*. The Old Persian form *aθurā* "Assyria" is a late loan-word from Aramaic.—In the same way *θy* ( $< ty$ ) and *čy* (as also in Avestan) have become *šy* in Old Persian; cf. O.P. *hašiyam*: Av. *haθyam*: Skt. *satyām*; O.P. *ašiyavam*: Av. *šyavāi*: Skt. *cyāvate*. Also the *θ* ( $< t$ ) of *θn* has changed into *š* in Old Persian, but not in Avestan; cf. O.P. *arašni*: Av. *arəθna*: Skt. *aratni*.

6. The change of I-Ir. *t<sup>h</sup> t<sup>h</sup>th* ( $< tt$  *tth*) into *st* is another common characteristic of all the Iranian languages distinguishing them from Indo-Aryan. Thus Av. *čisti-*: Skt. *citti-*, Av. *vōistā*: Skt. *vēttha*, Av. *asti-*  $< *atthi-$ : Skt. *ātithi-*; O.P. *pastē-*  $< *pad-ti-$ . It is to be noted that this secondary *s* must have been qualitatively different, for in Avestan it does not change into *š* after *i* like the *s* derived directly from the original Indo-European.—A similar pan-Iranian characteristic is the change of I-E. *d<sup>h</sup>dh* ( $< ddh$ ) into *zd*. Thus prim. I-E. *\*de-d-dhi*  $>$  I-E. *\*de-d<sup>h</sup>dhi*  $>$  I-Ir. *\*dazdhi*  $>$  Av. *dazdi* (Skt. *dēhi*). In this connection it is important to note that Bartholomae's law (I.I.S., p. 45), according to which 'sonant aspirate+surd' becomes 'sonant+sonant aspirate' in Indo-Iranian, does not act in Old Persian (Benveniste, § 33). That is why corresponding to Skt. *baddhā* ( $< I-Ir. *badh-ta$ ) we have in Old Persian *basta* (so also in later Avestan!) and not *\*bazda* as to be expected, for Bartholomae's law failed to sonorise the suffixal *t* in this form; thus *\*badh-ta*  $>$  *\*bad-ta*  $>$  *\*batta*  $>$  *basta*.

7. The Indo-Iranian *s* changed into *h* in primitive Iranian excepting before and after occlusives. Thus Av. *hapti*: Skt. *sāpati*, Av. *ahmat*: Skt. *asmāt*; O.P. *hašā*: Skt. *sācā*, O.P. *nāham*: Skt. *nāsam* "nose"; Av. *dahynš* "province": O.P. *dahyāuš*: Skt. *dāsyuḥ* (with a different meaning).

8. Initially and after consonants *hm hr* ( $< sm sr$ ) dropped the *h* (Bartholomae, Vorgeschichte, § 87) in primitive Iranian. Thus Av. *mahi*: Skt. *smāsi*; in Old Persian the *h* of *hm* ( $< sm$ ) is nowhere retained, thus O.P. *amiy*: Av. *ahmi*: Skt. *dsmi*. Similarly Av. *raṇā*: Skt. *srāmsate*, O.P. *rauta*: Skt. *srótas*.

9. I-Ir. initial *d<sub>z</sub>* and *dh<sub>z</sub>* changed into *b* in primitive Iranian; thus Av.

*baē* : Skt. *dvē*. As for west-Iranian, we have no example in Old Persian, but Kurd. *bar*- : Skt. *dvāra*- (< I.-E. \**dh̥wer*-).

10. I.-Ir. *sʰ* became *hʷ* in primitive Iranian; in initial position it further changed into *xʷ* (i.e., a labialised surd guttural spirant), but elsewhere remained as *hʷ*. Thus Av. *xʷafnō* : mod. Pers. *xʷāb* : Skt. *svāpna*; Av. *xʷaṇha* : mod. Pers. *xʷahār* : Skt. *svāsā*. Through analogy this phonetic law sometimes affected also non-initial *hʷ*; thus Av. *haraxʷaitī* : O.P. *hara(x)uwaitīš* : Skt. *sārasvatī*.

11. The primitive Iranian initial group 'š+consonant' received a prothetic *x* (a surd guttural spirant). Thus I.-E. \**szehs-* > I.-Ir. *šzaxš-* (initial *s* > *š* through assimilation) > Av. *xšvaš-* : Skt. *śāt*; Av. *frā-xšnəm* (from *zan-* "to know", Skt. *jñā-*) : O.P. *xšnāsatiy* (i.e. Skt. *jñāsyāti*). Strictly speaking, the prothetic *x* here is regular only in the Old Persian form and not in the Avestan form *frā-xšnəm* in which the *š* in question is not in absolute initial.

12. As an instance of the morphological innovations common to both eastern and western Iranian may be mentioned the extension of the I.-Ir. ending *-āni* into *-ānai* (Av. *āne*) in the 1. sg. subj. med. (Benveniste, § 230).

13. The formation of a new pronominal stem *xšma-* < \**sma-* for the 2. plural (beside the older *zušma-*) is another pan-Iranian innovation. Thus, corresponding to Skt. *yuṣmākam* we have Av. *xsmākəm* and mod. Pers. *šumā*—both going back to a prim. Ir. \**xsmāxam* (Bartholomae, *Vorgeschichte*, § 249. 3).

14. In the field of syntax the most remarkable pan-Iranian innovation consists in the fact that the ablative case is used for the most part only in connection with the preposition *hačā* (Skt. *sacā*). Thus Avestan : *xʷarəṇō apanə-mata yimat hačā* "brilliance disappeared from Yima;" Old Persian : *daraniyam hačā... baxtriya abariy* "silver was carried away from Bactria."

These are the chief pan-Iranian innovations distinguishing the Iranic group of Indo-European languages also from Indo-Aryan. But neither of the two languages mainly drawn upon above is a pure and homogeneous dialect : Old Persian has a strong admixture of Median, the ancient language of north-west Iran, and in Avestan too it is necessary to distinguish between the older (the language of the Gāthās) and the later dialect. It will be proper to note here, therefore, that the Persian group (i.e. Old Persian, Sassanian Pehlevi and Modern Persian, representing three stages of the same dialect) differs from all other Iranian dialects in the following respects :—

1. To Av. *s* = Skt. *ś* and to Av. *z* = Skt. *j* and *h* of the older palatal series (see LIS., pp. 72ff.) before vowel, there correspond in Old Persian *θ* and *d* respectively. Thus O.P. *ūra-* : Av. *sūra-* : Skt. *śūra-*; O.P. *θarada-* :

Av. *sarəð-*: Skt. *śarād-*; O.P. *ardata-*: Av. *ərəzata-*: Skt. *rajatā-*; O.P. *dasta-*: Av. *zastō-*: Skt. *hāsta-*; O.P. *adam*: Av. *azəm*: Skt. *dhām*. 1

2. The change of primitive Iranian *θy* and *θn* into *šy* and *šn* respectively (already mentioned above). Thus O.P. *hašiyam*: Av. *haθyam*: Skt. *satyām*; O.P. *arašni-*: Av. *arəθna-*: Skt. *aratnī-*.

3. Intervocalic *j* changed into *ž* in Old Persian; cf. *nižāyam* of which the real phonetic value was *nižāyam* (Benveniste, § 127).

4. The primitive Iranian combinations *θr*, *sv* and *štr* changed into *ss*, *s* and *š* respectively in Old Persian. Thus O.P. *pussa-*: Av. *puθrō-*: Skt. *puṭrā-*; O.P. *višam*: Av. *višpō-*: Skt. *viśva-*.—The first component *uša-* of the compound *ušabārim* perhaps represents a primitive Iranian *\*uštra-* corresponding to Skt. *uṣṭra* (Benveniste, § 109).

5. The *h* of initial or medial *-aha-* was dropped in Old Persian; thus O.P. *āhi* < *\*ahalī-*: Skt. *asāsi*; O.P. *θātiy* < *\*θahatiy*: Skt. *śāmsati* (Benveniste, § 134).

The path is now clear for us to attack the language of the Avesta. But the Avestan language too, as already hinted at, is no more a homogeneous language than Sanskrit, if by that term we have to understand all the different idioms beginning from the R̥gvedic dialect. We have to distinguish between older and later Avestan. The oldest Avestan is represented by the language of the Gāthās composed by Zarathuštra himself, a prominent characteristic of which is the protraction of final vowels<sup>8</sup>; slightly later, but older than the language of the Yašts, is the language of the *Yasna haptanhaiti*. The Videvdāt (Vendidad) on the other hand is perhaps an artificial product of the Arsakidan period. Different stages of the Avestan language can be clearly distinguished. The following are the chief distinguishing features of the post-Gāthic language:—

(1) Change of Iranian sonant occlusives to sonant spirants excepting after sibilants and nasals; (2) change of *z* before *m* to *s*, and of *s* under certain circumstances to *θ*; (3) replacement of the sonant groups originated through Bartholomae's Law by surd groups; (4) change of Iranian *d̥u* (=Gāth. *db*) to *t̥b* in initial position; (5) transfer of the primary medial dual ending *-θe* to the preterite; (6) replacement of dual verbal-forms by plural ones; (7) replacement of the primary ending *-ā* of the first person singular of thematic stems by *-āmi*; (8) in ablative singular, the transfer of the distinctive dental ending of the *a*-stems to other stems; (9) extension of the use of the dative in the genitive

8. It is an equally prominent characteristic of later Avestan that the final long vowels of polysyllabic words are shortened in it.

sense (as in the Brāhmaṇas); (10) general confusion in the use of the various verbal modes.—In the following treatment the Gāthā-dialect will be throughout considered as the normal representative of the Avestan language.

Regarding Indo-European gutturals, the first thing to note is that the pure velars having coincided with the labio-velars already in the Indo-Iranian epoch, we have in Avestan to deal only with labio-velars and palatals. Let us take up the labio-velars first :—

I.-E. *k<sup>w</sup>* is in evidence in Av. *kainibyō* : Skt. *kanyā* : Gr. *kainós* ; Av. *kat* : Skt. *kát* : Lat. *quod* ; Av. *vəhrkō* : Skt. *vṛkḥaḥ* : Goth. *wulfs*. Before consonants this *k* ( < *k<sup>w</sup>* ) became *x* (surd guttural spirant) according to no. 5 of pan-Iranian innovations described above. Thus Av. *xrūra*- : Skt. *krūrā*-, Av. *uxḍā* : Skt. *ukthāni*-. I.-E. *k<sup>w</sup>h* became *x* in prim. Iranian and remained so in Avestan as in Av. *xumba*- : Skt. *kumbhā*- ( < I.-Ir. \**khumbha*- ). After sibilant and nasal this *x* < *k<sup>w</sup>h* changed into *k* (but only before vowel !); thus I.-E. \**sk<sup>w</sup>h<sub>1</sub>ti*- : Av. *skarənaṣā* : Gr. *sphaīra*-. I.-E. *g<sup>w</sup>* appears as *g* (e.g. Av. *garō* : Skt. *girāḥ* "of praise"; Av. *gənā*- : Skt. *gnā*-), as also I.-E. *g<sup>w</sup>h* (e.g. Av. *garəmō* : Skt. *gharmā*-, Av. *darəgəm* : Skt. *dirghā*-). Before *ž* however the *g* < *g<sup>w</sup>h* seems to have been spirantised into *γ* already in prim. Iranian; thus Av. *-aoyḡā* < I.-Ir. \**augzha* : Skt. *óhate* : Gr. *eúkhomai*-. The forms given here are taken from the Gāthā-language; in later Avestan, Ir. *g* < I.-E. *g<sup>w</sup> g<sup>w</sup>h* became spirantic (*γ*), so that we find in the later language *γnā darəgəm* etc. Moreover Gāthā-Avestan *g* is dropped in later Avestan before *z* after vowel; thus Gāth. *dragvā* (for \**drugvā*); later *drvā* (for \**druvā*).

As in Sanskrit, so in Avestan too, I.-E. labio-velars were palatalised by following palatal vowels, and thus in Avestan too we find a *later palatal series* (see LIS., pp. 72-7). Thus Av. *čit* : Skt. *cit* : Lat. *quid* ; Av. *ča* : Skt. *ca* : Lat. *que* ; Av. *hačaitē* : Skt. *sácate* : Gr. *hēpetai* : Lat. *sequitur*. When followed by *i*, this *č* of the *later palatal series* became *š* already in prim. Iranian; thus Av. *šyaəθanəm* : Skt. *cyautná*, Av. *vašyetē* : Skt. *ucyáte*-. The surd aspirate of this later palatal series appears as *š* in Av. *hašē* (for \**hašyē*)=Skt. *sakhyé*-. Both the sonant sounds of the later palatal series have become *ṣ* in Iranian. Thus we have the pure sonant in Av. *ṣṇayō* : Skt. *janay*- : Goth. *qēns* ; Av. *aoṣō* : Skt. *ójah* : Lat. *augeo* ; and the aspirated sonant in Av. *aṣən* : Skt. *han*-, Av. *a-druṣyant*- : Skt. *drúhyati*.

The sounds of the *older palatal series* (derived from I.-E. *k̂ k̂h ĝ ĝh*) appear as sibilants in Avestan. Thus, for *k̂* cf. Av. *satəm* : Skt. *śatám* : Lat. *centum* ; Av. *ašnaoti* : Skt. *amśa*-, I.-E. *ŝh* ( > Skt. *ch*, medially *cch* ) has developed into *s* in Avestan; thus from I.-E. \**ŝkhid*- we have Av. *-siḡyāt* : Skt. *chidyáte* : Gr.



*skhizō* ; Av. *pərəsaiti* : Skt. *pr̥cchāti*.—Both *ḡ* and *ḡh* have normally developed into *z* ; thus for *ḡ* cf. Av. *patī.zānatā* : Skt. *jānāti* : O. Ch. Sl. *znāti*, Av. *ərəzūš* : Skt. *ṛjū* ; for *ḡh* cf. Av. *vazaiti* : Skt. *vāhati* : O. Ch. Sl. *vezq*, Av. *bərəz* : Skt. *bṛh* : Arm. *berj*. The *z* from both these sources however becomes surd when immediately followed by a nasal ; thus Gāthic *rašnā* (Instr. sg.) from *razan-* (connected with Skt. *ṛjū-*) and later Avestan *barəs-man-* < \**barz-man-* : Skt. *barhiḥ*.

I-E. dentals have not undergone any spectacular change. According to the general laws of Iranian phonology, *t* remained unchanged before vowels, but elsewhere changed into *θ*. Thus Av. *tarə* : Skt. *tirāḥ* ; Av. *paitiš* : Skt. *pātiḥ* ; Av. *vaštī* : Skt. *vāṣṭi* ; Av. *θwəəm* : Skt. *tvām* ; Av. *θrātā* : Skt. *trātā* ; Av. *maqθrō* : Skt. *māntrah*. But *t* immediately followed by *s* was assimilated to the latter in Avestan ; thus *ts* > *ss* (written *s*) as in *dragvasū* < \**-vas-su* < \**-vat-su*. Already in prim. Iranian final *t* had become spirantic (Bartholomae, *Vorgeschichte*, § 93.1) ; this spirantic dental is expressed in transcribed Avestan by *t̤*, e.g. Av. *barat̤* : Skt. *bhārat*.—The aspirate *th* was spirantised into *θ*, but was de-aspirated after sibilants. Thus Av. *aθā* : Skt. *ātha*, but Av. *əntarəstā* : Skt. *antahsthā*. Spirantisation was hindered in the same way also by an immediately preceding nasal, cf. Av. *panthā* : Skt. *pānthāḥ*. It is curious to note in this connection that Iranian *θ* was sonorised into *ð* in Avestan after *f* and *x* ; thus Av. *naḥəθrō* : Skt. *nāptar*, Av. *vavaxða* : Skt. *uvāktha*.—Both the sonant dentals are represented by *d* in Avestan ; thus Av. *dasā madahyā* : Skt. *dāśa mādasya*, and Av. *daršiš varədaiti* : Skt. *dharṣ- vārdhate*.—In later Avestan Gāthic *d* often appears as the spirantic *ð*, thus Gāth. *madahyā* : later Av. *maðō* etc.

Subject to the general laws of Iranian phonology, Indo-European labials too have had on the whole a peaceful existence in Avestan. Thus *p* remains unchanged, excepting before consonants where it changes into *f* ; but a preceding sibilant hinders this spirantisation. Cf. Av. *pitā* : Skt. *pitā* ; Av. *fryō* : Skt. *prīyāḥ* ; Av. *spərədā* : Skt. *spardh*. Immediately before *t* however we find *p* instead of *f* : Av. *ptā* : Skt. *pitā*.—I-E. *ph* appears as *f* in Avestan, but as *p* after *s* ; thus Av. *safəm* (acc. sg.) : Skt. *śaphām* (acc. sg.), but Av. *-sparat̤* : Skt. *sphurat*.—A primary I-E. *b* is to be found—as *w*—only in Av. *xšaēwō*<sup>9</sup> < I-Ir. \**ṣuāib-* : Lat. *vibrare* etc.; a secondary one in Av. *upa-bdi* : Skt. *upabddh* : Gk. *epibdai* (from I-E. \**ped-*).—Instances of *b* < *bh* are numerous ; cf. Av. *brātā* : Skt. *bhrātā* and the ending *-biš* in instr. pl. corresponding to Skt. *-bhis*

9. The *w* here stands for *b*.

and Gr. *-phi(n)*. Already in Gāthic, but very frequently in later Avestan, this *b < bh* appears as *w*; thus Gāth. *aibī*: Later Av. *aiwi*: Skt. *abhi*; Gāth. *garəbəm*: Later Av. *-garəwā*: Skt. *gṛbhṇāti*. Moreover this *w* is often represented by *v* in writing in later Avestan, e.g. *fra-vāiti*: Skt. *bhāti*, *apa-varāni*: Skt. *bhārāṇi*.

Most of the Indo-Iranian dental spirants (derived from the Indo-European period) have been given up in Sanskrit; but they are mostly preserved in Avestan. I-Ir. *s* remains on the whole, but changes into *h* before and after vowels (see above, no. 8 of pan-Iranian innovations); thus Av. *stāwəm*: Lat. *stella*, Av. *dā<sup>h</sup>rištəm*: Skt. *dāmsiṣṭham* etc. I-Ir. *ts* has been assimilated into *ss > s* in Av. *masyō*: Skt. *mātsyam*.—It is a striking innovation of Avestan that in it primitive Iranian *h* is always preceded by a nasal when *a* follows; thus Av. *anzhat*: Skt. *āsata*, Av. *va<sup>h</sup>anhe*: Skt. *vācase* (*e < ai*), Av. *ā<sup>h</sup>ra*: Skt. *āsa*. But the *h* of this *nh* is dropped before *r*; thus Av. *dangyā*: Skt. *dasrā* from *da<sup>h</sup>ns-*, Av. *čatanrō*: Skt. *cātasraḥ*, Av. *hazanrəm*: Skt. *sahāsrām*. In later Avestan the *h* of this *nh* is dropped also before *u*; thus later Av. *bararuha* (instead of *\*baranzuha*): Skt. *bhārasva*, but Gāth. *gūšahrā*: Skt. *ghuṣ-*. According to Bartholomae, the appearance of *nh* before *i u* (e.g. Av. *vanhu*: Skt. *vāsu*) and of *h* before other vowels (e.g. *pərəsahe*: Skt. *pṛchāse*) is to be regarded as disturbance of the normal rule (Awestisch und Altpersisch, § 286).—After I-Ir. *i, u*, liquids and gutturals *s* changed into *š* already in primitive Indo-Iranian; thus Av. *pišatō*: Skt. *piṇāṣi*: Av. *sišōit* from root *sāh-* (cf. Skt. *sās-*: *śiṣṭā*); Av. *hušatəm* “of those which dry up”: I-E. *\*saus-* (cf. Gr. *aūos*); Av. *taršnō*: Skt. *tṛṣṇā*; Av. *vašat*: Skt. *ukṣant-*: Gr. *aúxō*.—Under similar conditions I-E. *z* became *ž* in Indo-Iranian. Thus Av. *miždam*: Skt. *mīdhām*: Goth. *mīzdō*; Av. *armōi-ždō* “sitting still” from root *had-*: Skt. *sad-* (cf. Skt. *śīdati < \*si-žd-ati*); Av. *duždā*: Skt. *dūḍhṭ-*; Av. *mərəždikā*: Skt. *mṛḍikā*. Otherwise however I-Ir. *z* remained unchanged in Avestan; thus I-Ir. *\*azdhi*: Av. *zdi*: Skt. *edhi*; Av. *naždistō*: Skt. *nēdiṣṭha-* (cf. LIS., p. 79).

The various Indo-European sound-combinations which have resulted in *hš* in Sanskrit (see LIS., p. 75) deserve special mention. I-E. *k̑p* has developed into *ś* in Avestan; cf. Av. *šiti-*: Skt. *kṣiti-*: Gr. *ktisis*, Av. *tašan-*: Skt. *tākṣan-*: Gr. *téktōn*, Av. *arəša-*: Skt. *tṛkṣa-*: Gr. *árktos*. I-E. *q̑p* however is met by *xš*; cf. Av. *xšayeiti*: Skt. *kṣīyati*: Gr. *ktōmai*, O.P. *a-xšata-*: Skt. *kṣatā-*: Gr. *kteinō*. I-E. *k̑ph* is in evidence in Av. *rašō*: Skt. *rākṣas-*: Gr. *erékhlthō* and I-E. *k<sup>w</sup>p̑h* in Av. *xšyō* “of disappearance”: Skt. *kṣīti-*: Gr. *phthipsis*. Av. *zam-* “earth” (: Skt. *kṣam-*: Gr. *khthōn*: O. Ch. Sl. *zem-lja*) is derived from I-E. *\*g<sup>w</sup>dhem-*, and Av. *vi-žārayeiti* (: Skt. *kṣārati*) from I-E. *\*g<sup>w</sup>dher-*,

In the treatment of Indo-European vowel-system Avestan keeps close to Sanskrit. And so far as the semi-vowels are concerned, we have particularly to remember that in Avestan I.-E. *l* is not distinguished from *r*—which is more or less the position also of the earliest Sanskrit; thus Av. *rāḍaiti*: O. Ch. Sl. *raditi*, Av. *arəjō*: Skt. *arghaḥ*: Lith. *algà*.—I.-Ir. *ṛ* (which stands also for I.-Ir. *l*) is normally represented in Avestan by *r* preceded by a feeble vowel (*ər*); like *r* (as in *arəjō*) this *ər* too usually takes a Svarabhakti vowel when followed by a consonant; thus Av. *ərəzūš*: Skt. *ṛjū*, Av. *pərəθu*: Skt. *pr̥thū*. In writing sometimes the first *ə* of this *ərə* is dropped, as in *trafyaṭ*: Skt. *tr̥pyāt*. But as *tr* in this form has not changed into *θr*, it is clear that here too a very feeble vowel must have originally intervened between *t* and *r*. After labials however the preceding feeble vowel becomes a fully articulate *o* (written *ō*) as in Av. *mōṇdat*: Skt. *mṛdnāti*. In the accent-syllable the *ər* (< *ṛ*) later became completely voiceless and came to be represented by *əhr* before *k* and *p* as in Av. *vəhrkō*: Skt. *vṛkaḥ*, Av. *kəhrpəm*: Skt. *kṛ̐bam*. Before *t*, however, the stressed *ṛ* not only became voiceless but further combined with the dental into *š*; thus Av. *aməšəm*: Skt. *amṛ̐tam*, but Av. *mərətō*: Skt. *mṛ̐tāḥ*. But the usual manner in which the normal *ər* is disturbed is through the development of the feeble vowel into a frank *a*—and that from the Gāthās—as in *daršōitiš* beside *-dərəštā*, Av. *parštəm*: Skt. *pr̥ṣṭā*, Av. *parštəm*: Skt. *pr̥ṣṭhā* Av. *raərəšəm*: Skt. *vr̥kṣām* etc.—I.-Ir. *ṛ* appears as *ar* in Avestan (with the additional Svarabhakti *ə* before a consonant) as in Av. *arəma*: Skt. *īrmd*, Av. *starəta*: Skt. *stīrṇā*, Av. *darəgəm*: Skt. *dīrghām*.—Avestan representatives of I.-E. *ṛ*, like the Greek ones, strongly suggest that the ablaut-grade expressed in Sanskrit by *ṛ* was not altogether devoid of a genuine vowel-element.

The two I.-E. sonant nasals *m̥ n̥* normally appear as *a* in Avestan as in Skt. (see LIS., p. 85); cf. Av. *satəm*: Skt. *śatām*: I.-E. *\*k̑m̥tóm*; in the neighbourhood of palatal vowels this *a* appears as *e* as in Av. *apa-yeiti* from *y̑m̥* < *yam*. The Indo-European prohibitive particle *\*n̥-* appears as *a-* before consonants as in Skt. And as in Skt., so in Avestan too, *m̥ n̥* before *y v* appear as *am an* respectively; thus Av. *ḡamyāt*: Skt. *gamyāt*: Gr. *bainō* < *\*bam̥iḍ*: I.-E. *\*g̑m̥-*, and Av. *ḡanyāt*: Skt. *hanyāt*: I.-E. *\*g̑m̥h̑n̥-*.—The long nasal sonant appears as *ā* in Av. *zātō*: Skt. *jātā* (LIS., p. 87).—The semivowel *l* has been preserved in Avestan; cf. Av. *yušmat*: Skt. *yuṣmāt*, Av. *rāyō*: Skt. *rāyāḥ*. The semivowel *ɹ* however changes into *p* after *s* and into *b* after *z*; thus Av. *aspō*<sup>10</sup>: Skt. *ásvalḥ* and Av. *zbayā*: Skt. *hvyāmi*: I.-E. *\*ǵh̑ɹel-*.

10. Benveniste however considers it to be a loan-word from Median.

The Indo-European extreme vowels *i u* (i.e. the weak-grade forms of *i*-diphthongs and *u*-diphthongs) are well preserved in Avestan, as also their long forms *ī ū*. Thus I.-E. \**idhī*: Skt. *ihī*: Gr. *ithi*: Av. *idī*: Av. *vīrəm*: Skt. *vīrām*; I.-E. \**dhug<sup>wh</sup>hēter*: Av. *duvā*: Skt. *duhitā*: Gr. *thugātēr*: Av. *būmim*: Skt. *bhūmim*.—As for the diphthongs, the first thing to note is that short diphthongs have, as a rule, not been levelled into monophthongs in Iranian as in Sanskrit (see Bartholomae, *Vorgeschichte*, § 79; *Awestisch und Altpersisch*, § 297). I.-Ir. *ai* (< I.-E. *ei, oi, ai*) appears in Avestan usually as *aē* (e.g. Av. *snaēžat*: Gr. *(s)neiphei*) but sometimes also as *ōi* (e.g. Av. *ōyum* for \**ōivm*: Gr. *oi(v)os*). But there is no reason to believe that in actual pronunciation this *aē* was much different from Skt. *ai*. At the end of a word however Av. *aē* is levelled into *ē*: thus Av. *ārmaitē* "O Aramaiti!", Av. *varhavē*: Skt. *vāsava*, etc. The corresponding Indo-Iranian long *i*-diphthong (Skt. *ai*) appears as *āi* in Avestan—thus Av. *uxθāiš*: Skt. *ukthāiḥ*.—The I.-Ir. short *u*-diphthong (*au* < I.-E. *eu, ou, au*) similarly appears in Avestan as *ao* or *au*, but in actual pronunciation it was like Skt. *au*: thus Av. *aojō*: Skt. *ójah*: Lat. *augeo*; Av. *sraošō*: Gr. *klē(v)ō*: Skt. *śrav*: Av. *raočayeiti*: Skt. *rocáyati*: I.-E. \**louk<sup>w</sup>éyeti*. The I.-Ir. long *u*-diphthong *āu* is in evidence in Av. *gāuš*: Skt. *gāiḥ*. At the end of a word however I.-Ir. *āu* becomes *ā̄* (i.e., the vowel-sound in Engl. *saw*) in Avestan; thus Av. *xratā̄*: Skt. *krātau*.

Many new diphthongs have arisen in Avestan through epenthesis. Thus *i*-epenthesis is very common when a palatal vowel (*i, y, e*) follows, and it appears regularly before *r* under similar circumstances; thus Av. *airyō*: Skt. *ārya*, Av. *mainyuš*: Skt. *manyú-*, Av. *maižya*: Skt. *mādhya-*, Av. *aibī*: Skt. *abhi* etc. Epenthesis of *u* is not so wide-spread, but it occurs regularly before *ru*; thus Av. *aurušəm*: Skt. *arušdm*, Av. *pouru-*: Skt. *purú-*.—Initial *ri* and *ru* induce a prothetic vowel; thus Av. *irista-* "dead" from *raēθ-* "to die", Av. *urūpay*: Skt. *rūpá-*.—Svarabhakti too is very common in Avestan, and that particularly after *r* as in Vedic Sanskrit; thus Av. *arəθəm varənah*: Skt. *ārtham vāṛṇah*.

We shall conclude our account of the Avestan vowel-system with a few words about the representation of the Indo-Iranian normal vowel *a* (< I.-E. *e, o, a*). As a rule it is retained unchanged in Avestan. But it is extraordinarily susceptible to every kind of assimilation. Thus it becomes *e* after *y* when the following syllable contains a palatal vowel (*i, y, e*) or *j*: e.g. Av. *yesnyā*: Skt. *yajñtyā* (acc. pl. neut.), Av. *iθyejō*: Skt. *tyājah*. It becomes *o* after labials if the following syllable contains an *u*; thus Av. *mošū*: Skt. *makṣā*. Before nasals and *vi*, it appears as the irrational vowel *ɔ*; thus Av. *nəmō*: Skt.

*nāmaḥ*, Av. *savištō* : Skt. *saviṣṭha*. It appears as *i* before nasals when *y*, *č*, or *ṣ* precedes ; thus Av. *yim* : Skt. *yám* : Av. *čimnānī* from root *kan-* "to desire"; Av. *ṣimat* : Skt. *gamat* (*subj.*).—1.-Ir. *ā* too appears as *e* after *y* where the following syllable contains a palatal vowel ; thus Av. *zabayemi* : Skt. *hváyāmi*, Av. *ayeni* : Skt. *áyāni*. An *u* in the following syllable changes the *ā* into *ō* ; thus *ṣyōtūm* "life" beside *ṣyātəuš*. Before 'nasal+tenuis' it appears as *ā̃* : thus Av. *mazā̃ntəm* : Skt. *mahāntam*.

In word-formation Avestan has not much to teach that we do not already know from Sanskrit, and Avestan suffixes, where they are present, can be easily recognised by a student of Sanskrit once he has familiarised himself with Avestan phonology which mostly explains the differences in the forms concerned. Suffixless radical nouns (LIS., p. 92) are much in evidence in Avestan, e.g. Av. *hvar-* : Skt. *svār*, Av. *zam-* : Skt. *kṣam-* "earth," Av. *pad-* : Skt. *pad-*, Av. *barəz-* : Skt. *bṛh-* etc. So also bare thematic stems, e.g. Av. *gay-a-* : Skt. *gáya-*, Av. *fry-a-* : Skt. *prīyá-*, Av. *kām-a-* : Skt. *kāma-* etc. The primary feminine suffix *-ā* may be seen in Av. *gən-ā-* : Skt. *gnā-*, Av. *garəz-ā-* : Skt. *garhā-*. The primary suffixes *-i* and *-u* (alternating with *-ai* *-au*) are not less ancient than the thematic suffix itself ; cf. Av. *gairi-* : Skt. *gīrī-*, Av. *āži-* : Skt. *āhī-*, Av. *xratu-* : Skt. *krātu-*, Av. *vanhu-* : Skt. *vāsu-*. The feminine suffix *-ī* (< *-ēzā*) is in evidence in Av. *tūmī-* : Skt. *bhūmi-*, Av. *nāiri-* : Skt. *nārī-*, etc., and the suffix *-ū* (< *-egū*) in Av. *tanū-* : Skt. *tanū-*. The suffixes *-o*, *-i*, *-u* were increased by *-s* already in pre-Indo-Iranian times ; it is no wonder therefore that we find in Avestan as in Sanskrit also the suffixes *-as* *-is* *-us* ; thus Av. *manah-* : Skt. *mānas-* : Gr. *ménos* ; Av. *sravah-* : Skt. *śrávas-* : Gr. *klé(v)os* ; Av. *təvis-* : Skt. *táviṣi-* ; Av. *garəbuš-* : Gr. *delphūs* : Skt. *gārbha-* (with a different suffix). There is no reason to believe that this *-is* is in any way connected with the Indo-European comparative (or rather intensive) suffix *-tos* (LIS., p. 104) which is clearly in evidence in Av. *vahyah-* : Skt. *vāsyas-*, Av. *āsyah-* : Skt. *āśīyas-* etc. Nor is the suffix *-vas* of perfect participle in any way connected with the *-us* mentioned just above, though participial *-vas* too appears as *-us* in weak-grade forms as in Sanskrit ; cf. Av. *vidvah-* *viduš-* : Skt. *vidvās-* *vidúṣ-* ; for its feminine form, cf. Av. *ṣarṣmūšim* : Skt. *jagmuṣī*. Present participles in *-ant*, too, are well attested in Avestan where the suffix appears also in its weak-grade form *-at* (< *-nt*) as in Sanskrit ; thus Av. *barəzant-* *barəzat-* : Skt. *bṛhānt-* *bṛhat-*, Av. *hant-* *hat-* : Skt. *sánt-* *sat-*. Of the other participial suffixes, the medial *-mana* : Gr. *-meno* : Skt. *-māna* (LIS., p. 106) is to be found in Av. *sayamana-* (corresponding to Skt. *\*śayamāna-* from *śi-* "to lie"). But more often it appears as *-mna* as in Av. *barəmnā-* : Skt. *bhāramāṇa-*. The suffix *-āna* too may be clearly perceived in Av. *sayana-* *daθāna-* : Skt. *śáyāna-* *dādḥāna-* etc. The suffix *-ta* of passive parti-

ciple is as common in Avestan as in Sanskrit ; thus Av. *sruta- bərəta- vərəzda-* : Skt. *śrutā- bhṛtā- vṛddhā-*. Avestan sometimes shows *-ta* where Sanskrit has *-na* ; thus Av. *starəta-* : Skt. *stīrṇā-*. But the suffix *-na* too is fully in evidence in Avestan—as in Av. *pərəna-* : Skt. *pūrṇā-*.—The suffixes *-vant* and *-mant* of Skt. (LIS., loc. cit.) appear also in Avestan with the same functions ; thus Av. *zastavant- gaomant-* : Skt. *hāstavant- gōmant-* etc. The suffixes *-van* and *-man* of Sanskrit, closely resembling *-vant* and *-mant* both in form and meaning, are likewise clearly attested in Avestan ; cf. Av. *ašavan-* : Skt. *ṛtāvan-* and Av. *airya-man-* : Skt. *aryamān-*.—Examples of the agent-suffixes *-ar* and *-tar* are quite abundant in Avestan ; cf. Av. *nar- pitar-* : Skt. *nār- pītār-* etc. As for the instrumental-suffix *-tra* (LIS., p. 103), cf. Av. *kəstra-* : Skt. *khanitra-*.—The Indo-European comparative suffixes *-ero* and *-tero* are clearly in evidence in Avestan ; cf. Av. *upara-* : Skt. *ūpara-* : Lat. *superus*, Av. *ažara-* : Skt. *ādharma-* : Lat. *inferus*, Av. *fratarā-* : Skt. *pratarām-* : Gr. *próteros* etc. So also the Indo-European superlative suffixes *-mo* and *-īma-* ; thus Av. *apəma-* : Skt. *apamā-*, Av. *upəma-*, Skt. *upamā-*, Av. *ustəma-* : Skt. *ūtama-*, Av. *hastəma-* : Skt. *sāttama-*, Av. *pourutəma-* : Skt. *purutāma-*. The Indo-European comparative suffix *-tos* (LIS., p. 103) too is well attested in Avestan ; cf. Av. *vahya-* : Skt. *vāsyas-*, Av. *āsyah-* : Skt. *āśīyas-*, Av. *frāyah-* : Skt. *prāyaḥ-*. So also the corresponding superlative suffix *-isto* ; thus Av. *vahišta-* : Skt. *vāsiṣṭha-*, Av. *nazdīsta-* : Skt. *nēdiṣṭha-* etc.

In noun-inflection Avestan so closely resembles Sanskrit that in this respect at least it may be truly said that they are dialects of the same language. In nom. sg. both sigmatic and asigmatic forms in masculine and feminine are as well attested in Avestan as in Sanskrit ; thus we have asigmatic forms like Av. *nā* : Skt. *nā* < I-Ir. *\*nār*, Av. *ašavā* : Skt. *ṛtāvā* < *\*vān*, Av. *naivə.manā* : Skt. *nymanāḥ* etc. at the side of sigmatic forms such as Av. *vāxs-* : Skt. *vāk* : Lat. *vōx*, Av. *gāuš-* : Skt. *gauḥ* etc.—The voc. sg. is as a rule without case-suffix as in Sanskrit ; thus Av. *ahura* : Skt. *asura*, Av. *yum* < *\*yuvəm* < *\*yuvən* : Skt. *yuvan* etc. The distinctive nasal ending of masculine and feminine sg. acc. may be seen, for instance, in Av. *gən vāčm pādam* corresponding to Skt. *gām vācam pādām*. Neuter *a*-stems take the nasal ending in nom.-acc. sg. as in Sanskrit, cf. Av. *xšaθrəm* : Skt. *kṣatram* ; and, as in Sanskrit, the neuter *i*-stems are without any ending in these positions ; cf. Av. *būiri vohu-* : Skt. *bhāri vāsu-*. The instrumental ending *-ā* of singular is attested for Avestan by forms like *zərədā* : Skt. *hyā-*, *mananhā* : Skt. *mānasā* etc. The endings *-i* *-ū* in instr. sg. of stems in *-i* and *-u* (see LIS., p. 127) are known only in Avestan apart from Sanskrit ; thus Av. *aši* in instr. sg. from the stem *aši-* like Skt. *ācittī ūtī* from *ācitti-* *ūtī-* ; similarly Av. *xratū* (beside *xraθwā*) from the stem *xratu-*. The Indo-European singular dative ending *-ai* is in evidence in Av. *mazōi* : Skt. *mahé*, Av. *vīse* :

Skt. *viśé* etc. In the case of *a*-stems this ending was extended by the post-position *-a* in Sanskrit (LIS., p. 128) but not in Avestan; hence Av. *ahurāi* (*-a+ai*) but Skt. *ásurāy-a*. The ablative singular had a form (in *-ēt*) distinct from that of genitive singular only in the case of *a*-stems (LIS., p. 14), thus Av. *dūrāt* : Skt. *dūrāt*. In Avestan this ending often takes a post-position—on account of which it there assumes the form *-za*; thus Av. *xʷafnāza* : Skt. *svāpnād ā*. In later Avestan the distinctive dental ablative ending of *a*-stems was adopted by all stems irrespective of the character of their stem-finals; thus Av. *manānhat* : Skt. *mānasah*, Av. *gaot* : Skt. *gólh*, Av. *nərət* : Skt. *nárah* etc. The Indo-Iranian ending *-sta* (< I.-E. *-sto*) in genitive singular is clearly in evidence in Av. *ahurahyā* : Skt. *ásurasya*; so also the Indo-Iranian ending *-as* (< I.-E. *-es -os*) as in Av. *mānho* : Skt. *māsah*, Av. *paθō* : Skt. *patháh* etc.; the bare ending *-s* may be seen, for instance, in Av. *garōiš* : Skt. *gīrēh*. Genitive case-forms of the flexion *forte* (see LIS., p. 132) are to be found in Av. *xraθwō* : Skt. *krátvah*, Av. *tanvō* : Skt. *tanvāh* etc., beside weak forms like Av. *vanhəuš* : Skt. *vāsah*. Let us mention in passing the two important endingless genitive forms Av. *dang* : Skt. *dān* (cf. *pātir dān* in Ṛgveda) and Av. *xəng* “of the sun” (< I.-Ir. *\*dans \*syans*). In locative singular the *i*-stems too take the ending *-au* (LIS., p. 43) in Avestan as in Sanskrit, and endingless locative forms like Skt. *āhan* (see LIS., p. 126) occur also in Avestan, e.g. *aγan* “by day.” The normal locative ending *-i* is to be found in Av. *paiθi* : Skt. *pathi*, Av. *tanvi* : Skt. *tanvi* etc.—The double-flexion of *i*-stems as in Skt. *devī devyāh* but *vṛkīh vṛkyāh* (LIS., pp. 134-5) cannot be clearly traced in Avestan (but see Bartholomae, *Vorgeschichte* § 191).

As regards dual endings, we have to note that, as in Sanskrit, *a*-stems show the ending *ā* (< I.-Ir. *-āu*) in nom.-acc. (cf. Av. *arəθnā* “the two elbows” : Skt. *aratni*) and *ā*-stems the ending *-e* (e.g. Av. *urvaire* : Skt. *urvāre*). In numerous cases however Avestan shows a short ending in nom.-acc. dual, e.g. Av. *nara zāmātara* : Skt. *nārā jāmātārā*. It is tempting to connect this *-a* with the Indo-European dual ending *-e* (LIS., p. 131), but it should rather be regarded as the normal result of the usual shortening of long final vowels of polysyllabic words in Avestan (Reichelt § 175. 2). Stems in *-u* and *-i* for the same reason appear as endingless in nom.-acc. dual; thus Av. *pasu* : Skt. *pásū* and Av. *aši* : Skt. *akṣī*. As examples of the neuter dual-ending *-e* let us mention Av. *saite hazanre* corresponding to Skt. *śaté sahásre*. The Sanskrit dual ending *-bhyām* can be perceived only in one Avestan form, viz. *brvatbyam*; otherwise we have only *-bya* as in Av. *nərəbya* : Skt. *nṛbhyām*. Old Persian knows only the ending *-biyā*. In genitive dual we have the ending *ā* (< I.-Ir. *\*-ās*) as in *nārā* “of the

two men": this ending stands absolutely isolated and cannot be traced in any other language. The Avestan locative dual ending *-ō* (< I-Ir. *-au* or *-as*) cannot be traced in Sanskrit—see *a ŋhvō* "in both lives" from *aŋhu-*; but it may be connected with the corresponding Old Church Slavic ending *-u* (Bartholomae, *Vorgeschichte* § 225). But for the absence of any trace of a final *-s* however the Avestan locative dual form *zastayō* could have been identified with Skt. *hāstayoh*.<sup>11</sup>

In plural Avestan shows both the endings *-as* and *-ās* of Sanskrit in nominative; thus Av. *xratavō aməṣā* corresponding to Skt. *krātavaḥ amṛtāḥ*. In the case of *a*-stems however the ending *-ā* is quite rare; rather we have here the short ending *-a*. It has thus come about that as a rule I-Ir. *a*-stems take the ending *-a* in nom. pl. and the corresponding *ā*-stems the ending *-ā*; thus Av. *aspa*=Skt. *āsvāḥ* (masc.) but Av. *urvarā*=Skt. *urvārāḥ* (fem.). The double ending in nom. pl. (see LIS., p. 17) is in evidence in forms like Av. *aspāxhō*: Skt. *āsvāsaḥ*. The corresponding Old Persian ending *-āha* as in *aniyāha bagāha* is perhaps of Median origin (Benveniste, § 302.). The ending *-āni* of neuter *a*-stems of Sanskrit (see LIS., p. 120) is known in no other Indo-European language, and in Avestan we have only the older ending *-ā* as in Gāth. *šyaoθnā* (shortened into *šyaoθna* in later Avestan): Skt. *cyautnā*; in the same way we have in Avestan *nəma* (< \**nəmā*) *θvī pourū* corresponding to Skt. *nāmā trī purī* (LIS., p. 121). The Indo-European plural ending *-ns* of accusative appears as *-ō* (< *-as*) in Avestan after athematic stems, thus Av. *māxhō*: Skt. *māsāḥ*; the corresponding thematic ending *-ons* (cf. Cretan *lúkons*) may be clearly perceived in the Av. *mašyəs-ča* (< I-Ir. \**martyans*) but not in Skt. *martyān(s)* of which the ending *-ān(s)* instead of *-an(s)* is very probably due to the analogical influence of *martyāḥ* in nom. pl. The *ā*-stems in acc. pl. show a nasalless form as in Sanskrit and other languages (see Wackernagel, III § 25); thus Av. *urvarā*: Skt. *urvārāḥ*. The Indo-Iranian endings *-ins -uns* in acc. pl. were lengthened in Sanskrit in the same way as I-Ir. *-uns* into *-āns* (see LIS., pp. 129-30); Avestan however has only reduced the nasal in them, lengthening the vowel in compensation; thus Av. *gairiš pourūš*: Skt. *gīrīn(s) purīn(s)*. Regarding the endings in instr. pl. of *a*-stems (LIS., p. 128), Avestan agrees exactly with classical Sanskrit (Wackernagel, III, § 52b): the ending *-āiš* for all nouns and pronouns excepting Av. *aēbiš*=Skt. *ebhiḥ*. Old Persian knows only the ending *-aibiš* (which is used also in abl.pl.). Avestan knows an ending *-iš* in instr.

11. For a discussion of the probable relation between the various dual endings of genitive and locative in the different Indo-European languages see Wackernagel, *Altindische Grammatik*, III, § 22c,



pl. which cannot be traced anywhere else, cf. *nāmānīš*, *ašaonīš* etc. The I-Ir. plural ending *-bhiṣ* in dat.-abl. is clearly in evidence in Av. *vīžibyō* : Skt. *viḍbhyāḥ* ; regarding the I-Ir. *-nām* ( : I-E. *-ōm*) in gen. pl. see LIS., p. 41. It is remarkable that the ending *-bhiṣ* has been completely eliminated from Old Persian ; in abl. pl. Old Persian uses the instrumental ending *-aibīš* and in dat. pl. the genitive ending *-ānām*. The I-E. plural ending *-su* in locative is in evidence in Av. *qzahu* : Skt. *ānhasu* etc.; but it is extended by *-a* frequently in Avestan and always in Old Persian (see LIS., p. 118); thus Av. *dāmōhu* *dāmahva* : Skt. *dhāmasu* ; O.P. *mādaišuvā* "among the Medians."

Indo-European pronominal declension has retained all its distinctive features in Avestan. The element *-m-* in masculine and *-sy-* in feminine (see LIS., p. 138) is fully in evidence, for instance, in Av. *kahmāi kahyāi* corresponding to Skt. *kāsmāi kāsyai* ; so also the characteristic dental neuter ending, for instance, in Av. *tat* : Skt. *tāt* : Goth. *ṭat-a*. The ubiquitous pronominal formans *-am* (see LIS., p. 136) is very prominent also in Avestan ; thus Av. *ayam tūm* corresponding to Skt. *ayam tvām*. To Av. *tabyā* fairly correspond Skt. *tūbhyam* and Lat. *tibi*, but corresponding to Skt. *māhyam* and Lat. *mihi* Avestan shows the analogical form *maibyā*. Variability of stem so characteristic of pronominal flexion is fully in evidence in Avestan ; thus *azm* *\*āwā vaēm ahmākəm* corresponding to Skt. *ahām āvām vayām asmākam*. Skt. *māma* and *svā* are met by Av. *mana* and *h(a)va* which must be regarded as the older forms in view of O. Ch. Sl. *mene* and O. Lat. *soro-*.

The verbal system of Avestan so clearly resembles that of Sanskrit that a student of Sanskrit after mastering Avestan phonology can easily understand it. Yet, the use of the augment is much more restricted in Avestan than even in the oldest Sanskrit. We have however a good number of augmented forms such as *akərənaot* *apərəsat* *ābavat* corresponding to Skt. *ākṛnotāpṛcchat ābhavat*. The special features of Avestan reduplication of verbal roots have been already discussed in LIS. pp. 37-39, and need not be repeated here. An instance of Attic reduplication (LIS., p. 141) may be found in the optative form *īšānhaēta* < *\*īš-ās-aita* (root *āh-*). Of consonants in root-initial only the first appears in the reduplication-syllable in Avestan as is usually the case also in Sanskrit (see Whitney § 590 d); thus Av. *didvāēša susruma* : Skt. *didvēša śusruma*; the Sanskrit form *tiṣṭhati* must be regarded as a new formation in view of Av. *hištaiti* and Gr. *histēsi*.

All the chief stem-classes of the present known to us from Sanskrit may be clearly traced in Avestan. The *bhū*-class (thematic, with radical accent) is represented, among others, by *bavaiti baraiti yazaitē* corresponding to Skt. *bhāvati bhārati yājate*. The root *as-* of the second Sanskrit stem-class (athematic)

shows the same striking ablaut-forms as in Sanskrit; thus Av. *asti hanti* : Skt. *ásti sánti*. The third Sanskrit stem-class (e.g. *juhóti* : reduplicating, athematic) is represented by Av. *daḍāiti* : Skt. *dádhdhāti* etc.; and the corresponding thematic class, among others, by Av. *hištaiti* : Skt. *tiṣṭhati*. Sanskrit *ya*-presents (fourth stem-class, thematic, accent on root or suffix : *náśyati yujyáte*) are richly represented in Avestan; thus Av. *irišyēiti* : Skt. *riśyati*, Av. *vašyetē* : Skt. *ucyáte* (with a reduced-grade form of the root *vac-*). Roots of the Sanskrit sixth class with accented thema-vowel (type *tudāti*) may be clearly perceived in Av. *harəzənti* : Skt. *srjānti* etc. Of the nasal classes, Sanskrit fifth class (type *sunóti*, athematic) is represented, among others, by Av. *karənaoiti ašnaoiti* corresponding to Skt. *kṛṇóti aśnóti*, as well as the eighth class (type *tanóti*)—which is genetically identical with the fifth class (see LIS., p. 151)—by forms like Av. *puiri.tanava* (Reichelt, § 207). Athematic nasal stems of the Sanskrit seventh class (type *runáddhi*) may be clearly perceived, for instance, in Av. *irinaxti* : Skt. *riṇákti*, and their thematic counterparts (type *muñcāti*) in Av. *hinčaiti karəntaiti* corresponding to Skt. *siñcāti kṛntāti* (see LIS., loc. cit.). Nasal presents of the Sanskrit ninth class (type *kṛñāti*) are well attested in Avestan (e.g. Av. *gerew-nāiti* : Skt. *gybhñāti*, Av. *zānəuti* : Skt. *jānānti*). The weak form of this stem-suffix should have been *-ni-* (< *nə* < *nā*), but in Sanskrit we find *-nī-* instead (cf. *kṛñītāḥ* etc.); in Avestan (see Reichelt, § 205) or any other language there is no sure trace of this anomalous long *-nī-*. The length of the vowel-element in the weak-grade form of this root-suffix is perhaps of rhythmic origin: after *puñāti*(—) and *puñānti*(—) was formed a *puñītāḥ*(—) in place of the phonologically correct form \**puñītāḥ* (—).—Of other present-suffixes let us mention *-sya-* (LIS., p. 153) which, as in Sanskrit, expresses future tense in Avestan, e.g. Av. *vaxšyā* : Skt. *vakṣyāmi*. The Indo-European inchoative suffix *-sḥ(h)o-* (LIS., p. 149) is in evidence in Av. *parəsā isaiti* corresponding to Skt. *pr̥cchāmi icchāti*. Causatives with the suffix *-āya-* (< I.-E. *-ēyo-*) are well attested in Avestan, e.g. Av. *tāpayēiti raočayēiti* : Skt. *tapáyati rocáyati*; so also denominatives with the suffix *-āyā-*, cf. Av. *nəmahyāmahī* : Skt. *namasyāmahī*.

In looking for Avestan aorist-forms we have mostly to do without the help of the augment which is much less in evidence in Avestan than in Sanskrit. Hence corresponding to Skt. *ádhdāt ákar* (root-aorist) we have in Avestan *dāt čōr.t*. A clear example of *a*-aorist can be found in Av. *bvat* : Skt. *bhuvāt* (augmentless forms) as opposed to the present forms Av. *bavaiti* : Skt. *bhāvati*. Av. *zīzanat* corresponding to Skt. *ājījanat* (Bartholomae, Vorgeschichte § 127) is a convincing example of reduplicating aorist in Avestan. Of sigmatic aorists, those characterised simply by *-s-* (*s*-aorists) are to be directly connected with the *s-*

presents found, for instance, in Av. *baxšaiti* : Skt. *bhákṣati* (cf. Skt. *bhájati*);<sup>12</sup> thus Av. *baxštā* : Skt. *ābhakta* (< \**ābhaksta*?), Av. *maštā* : Skt. *āmanista* etc. Thematic *s*-aorists (i.e. *sa*-aorists) are rare in Avestan; but see Av. *tāšat* : Skt. \**ātakṣat*, Av. *uz-važat* connected with root *valh-* of Sanskrit. The *is*-aorist is nothing but the *s*-aorist of dissyllabic roots, and as such is represented in Avestan, for instance, by the passive form *zāviši* "I was called" connected with Skt. *hāvate*. The form *dāhīš* is perhaps an example of *sis*-aorist in Avestan corresponding to Skt. *ādhasīh*, but Bartholomae (*Vorgeschichte*, § 158) doubts it.

Regarding perfect-formation the first thing to note is that unreduplicating weak forms in *-e-* of roots with *-a-* between consonants (e.g. *papāta* : *petātuḥ* from *pat-*) is not known in Avestan (see LIS., p. 79). But we have plenty of reduplicating forms such as *hanhāna vavāca* corresponding to Skt. *saśāna vavāca* with short reduplication-syllable, as well as forms with long reduplication-syllable like *dādarša* (: Skt. *dadārśa*). Preterital presents, though rare, are not unknown in Avestan, thus Av. *vaēdā* : Skt. *veda* : Gr. (*v*)*oīda*. Forms like Av. *vaočāt* : Skt. *āvocat* may be regarded both as pluperfect (Reichelt, § 242) and reduplicating aorist (Bartholomae, *Vorgeschichte*, § 127).

As for the verbal modes other than the indicative, the subjunctive is characterised by the modal suffix *-a-* or *-ā-* as in Sanskrit (LIS., p. 157); thus Av. *arhaiī čarat* corresponding to Skt. *āsati kárat*, Av. *barāt jāsāt* corresponding to Skt. *ūharāt gācchāt*.—Optative forms of athematic roots are characterised by the suffix *-yā-* : *-ī-* as in Sanskrit (LIS., p. 158); cf. Av. *daiōyāt daiditā* : Skt. *dadhyāt dādhita*. As for thematic optative forms uniformly characterised by *-e-* in Sanskrit (LIS., loc. cit.), cf. Av. *barōiš* : Skt. *bhārēh*.—Injunctive forms, i.e. forms of augment-tenses without the augment (LIS., p. 156), are well represented in Avestan (see Reichelt, §§ 656-61). As in Sanskrit, it is invariably used in connection with the prohibitive particle *mā* in the older language.—The imperative too, like the injunctive, is without any modal stem of its own both in Avestan and Sanskrit (see LIS., p. 156).

The personal endings of the Avestan verbal system are almost identical with those of Sanskrit. As examples of the primary singular endings of the present may be mentioned Av. *baraiti pərəsahi ahmi* corresponding to Skt. *bhārati pṛcchāsi āsmi*; the corresponding secondary endings may be seen in Av. *barat dadā abarəm* : Skt. *ābharat ādadāh ābharam*.—The two subjunctive endings in the first person singular as in Skt. *brāvā brāvāṇi* (Whitney, § 615)

12. I take this opportunity to correct the inaccurate statement made in LIS., p. 159, that *s*-presents are unknown in Sanskrit.

may be seen in Av. *mrava mravāni* (see Bartholomae, *Vorgeschichte*, § 106. 4j). The original Indo-European ending here was *-ō*, cf. Gr. *ágō teisō*; but at a very early date it was extended by *-u* as we find in Goth. *bairau* etc.; in Indo-Iranian however it was extended by *-ni* (LIS., p. 40).—In the second person singular of the imperative we have both endingless forms of thematic stems such as Av. *bara* : Skt. *bhāra*, as well as forms with the special ending of the athematic conjugation e.g. Av. *idī* : Skt. *ihī* (LIS., p. 163). The imperative ending *-na* as in Skt. *kārtana* can be found only in Avestan, e.g. *baranā* beside *bara* (LIS., p. 40), if Sanskrit is excluded. But there is no trace in Avestan or Iranian of the Sanskrit imperative ending *-tāt* of Indo-European antiquity (LIS., p. 163). Imperative forms like Skt. *bhāratu hāntu* constructed by adding the deictic particle *-u* to injunctive forms (LIS., p. 39) may be found in Av. *baratu jāntu* etc.; and the medial imperative ending *-sua* is clearly in evidence in Av. *kərəšvā* : Skt. *kṛvā*, etc. The ending *-i* of passive aorist, a striking common Indo-Iranian innovation, has been already mentioned in LIS., p. 39.—We shall conclude this chapter with a few words about the peculiar *r*-endings (LIS., p. 163) used in the third person plural of different moods both in active and medium. For active cf. Av. *hyārə ānharə jamyārəš čikōitərəš* corresponding to Skt. *syūr āsūr gamyūr cikitiūr*; for medium cf. Av. *sōire čāxrare* corresponding to Skt. *śere cakrivé*. A form of the type of Skt. *āsasygram* (pluperfect with *r*-ending) from *sṛj-* may be found in Av. *vaozīrəm* from *vaz-* (Bartholomae, *Vorgeschichte*, § 121).

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# MISCELLANEA

( 1 )

## UDDEHIKA AND BAZANA

Among the ancient coins found at Rairh in the excavations recently conducted by the Rai Bahadur Dayaram Sahni and subsequently by Dr. K. N. Puri is one inscribed with the legend *Udehaki*, which is evidently a Prākṛit form of the name of a town that was probably the capital of a people called Uddehikas by Varāhamihira.<sup>1</sup> Their country (deśa) is placed by him along with those of Gauragrīvas, Pāṇḍus, Guḍas, Aśvatthas and Pāñcālas in the Middle Country. The first and the fourth of these 'deśas' are at present unidentifiable. The Aśvatthas are apparently an animistic tribe that worshipped the Aśvattha tree. The Guḍa-deśa is identified by Al-Bīrūnī<sup>2</sup> with "Tānēshar" (Thāneshar, ancient Sthānvīśvara, Sthāneśvara). The Pāṇḍus are evidently identical with the "Panda" mentioned by Megasthenes<sup>3</sup>. Immediately after narrating an interesting tale in connection with this race, Megasthenes refers to the Syrieni, 'with 300 cities', Derangae, Posingae, Buzæ and other tribes. The first of these, viz. Syrieni, are certainly identical with the Śūrasenas of Mathurā and the surrounding districts, while the last (i.e. Buzæ) should probably be equated with the Bodhas who are often mentioned in the Purāṇas<sup>4</sup> along with the Śūrasenas, Bhadrakāras<sup>5</sup>, and Paṭaccaras (v. l., Śatapatheśvaras). The Derangae seem to be mentioned by Arrian as Saranges<sup>6</sup> who may be perhaps identified with the Saradaṇḍas, one of the six constituents of the Śālvas according to the Kāśikā. Any way, the Pāṇḍus do not seem to have been far removed from Thāneshar, Mathurā and Alwar districts while the Pāñcālas were not far off. Varāhamihira gives only rough indications regarding the location of place-names. Uddehikā, the capital of the Uddehika country, may therefore be expected at not a very great distance from the countries of the Pāṇḍus, Guḍas, and Pāñcālas.

1. Brhat-Saṃhitā, XIV. 3.

2. Al-Bīrūnī's India (Sachau, 1914), I. 300.

3. McCrindle, Megasthenes and Arrian, pp. 150 f.; 161 f.

4. Matsya, 114. 35; Vāyu, 45. 110; etc.

5. The correct form should probably be 'Madrakāras', who are referred to by the Kāśikā among the six constituents of the Śālvas (cf. Kāśikā on Pāṇini IV. 1. 173).

6. McCrindle, Op. cit. p. 196.

Al-Bīrūnī places the Uddehika country “near Bazāna”,<sup>7</sup> which he says, “is called Nārāyan by our people”.<sup>8</sup> He adds<sup>9</sup> that it (Bazāna) had already fallen into decay ; still he measures the distances to other towns from this centre. This probably shows that previously it was a big and prosperous town. General Cunningham identifies it with a small town in Alwar state called Narayanpur, “a town situated at 10 miles to the north-east of Bairat”<sup>10</sup>. But the distance and direction from Kanauj and Maiwar (Mewar) given by Al-Bīrūnī led me rather to Naraina (a town 70 miles SW of Bairat, in Sambhar district, Jaipur State), with which I have already identified it in my article on “Some Early Gurjara Settlements”.<sup>11</sup> Naraina is about 125 miles north of Chitor, (Al-Bīrūnī’s Jattaraur, the capital of Maiwar, which is about 25 farsakh S. of Bazāna). Dr. Puri informs me that at Narain, a Persian inscription of circa 10 A.H. was found. Dr. Sachau, the learned editor of Al-Bīrūnī, does not seem to be very sure as to the correct form of the word Bazāna, and he puts a query after it. Possibly, it represents a corrupt form of the Sanskrit word Bhādānaka, which is mentioned along with “Takka and all the Maru countries” in an interesting verse quoted by Rājaśekhara,<sup>12</sup> among the regions where Apabhraṃśa dialect was in vogue. The same tradition seems to be referred to in the *Sarasvatī-kaṇṭhābharana*<sup>13</sup> of Bhoja (1030 A.D.) in the line :—“By Apabhraṃśa dialect the Gurjaras are pleased.” These two statements taken together would probably corroborate Al-Bīrūnī’s statement that Bazāna (—Bhadanaka, Naraina ?) was “the capital of Guzarāt.” This Guzarāt is evidently identical with Gurjarattā of ancient inscriptions, and Bazāna possibly with the Gurjaragrāma mentioned in the Pañca-tantra. A Sāñchī inscription<sup>14</sup> in Prākṛit seems to refer to Bhādana (or perhaps Bhadanaka). If so,—and this does

7. *L.c.*

8. *Ibid.* I. 202.

9. *Ibid.* I. 202 : 205f.

10. *AGI.*(1924). 387f.; *Arch. Sur. Ind.* ii. 242 ; *JBORS.* XXIV. iv. 229f.; etc. Is Nārāyanpur identical with Upaplavya ?

11. *J. Gujarat Res. Soc., Indrajī Com. Vol.*, p. 133.

12. “गीहयाः संस्कृतस्थाः परिचित्रुचयः प्राकृते लाटदेश्याः ।  
सापभ्रंशप्रयोगाः सकलमरुभुवष्टक्कभादानन्दाय ॥”

*Kāvya-Mīmāṃsā*, (G.O.S., I. 1934), p. 51.

13. “शृण्वन्ति लाटभं लाटाः संस्कृतं प्राकृतहिषः ।  
अपभ्रंशेन तुष्यन्ति स्त्रिये नान्येन गुर्जराः ॥”

*Sarasvatī-kaṇṭhābharana*. II. 13.

14. *EI.* II. 97 f. No. 120 :—Soyasasa dānam Bhādana-katiyaśa (or Bhādanakṣ-Tiyaśa).

not seem very unlikely in view of Al-Bīrūnī's statement that it was already a dilapidated town in his days—the existence of this town goes back to the first or second century B.C.

Also, if Bhādāna or Bhādānaka was a name current at that ancient date, we have perhaps to reject that interesting suggestion<sup>15</sup> that Bhādānaka "may be the same as Bhāṭadhāna" (correctly Vāṭadhāna, which is a name of frequent occurrence in the Purāṇas, the Mahābhārata, etc.). The Purāṇas<sup>16</sup> correctly mention the Vāṭadhānas in the tribal list along with the Vāhikas (v. l. Bāhikas), Ābhīras, and Kālatoyas. Vāṭadhānas (like Ābhīras and Vāhikas) were degenerate beings in the eyes of the Brāhmaṇas of the Madhya-deśa like the author of Manusmṛiti,<sup>17</sup> according to whom they were offsprings of the 'Sāvitrī-patita' Vṛātya Vipras. The Sabhā-parva<sup>18</sup> seems to place them somewhere in the vicinity of Puṣkara, and the same region is indicated in the passages where the Vāṭadhāna Brāhmaṇas are said to have brought tributes for Yudhiṣṭhira, thus probably indicating that they were a Brahman republic. Their encounter with Nakula would probably show that they had taken to arms, and this assumption is perhaps corroborated by their being mentioned in the Krodhavaśa Gaṇa.<sup>19</sup> Their capital Vāṭadhānam is referred to in the Udyogaparva.<sup>20</sup>

I have dwelt on the Vāṭadhānas at some length, because in spite of the above mentioned objection, I do not feel quite certain that the Vāṭadhāna is not identical with Bhādānaka or Bazāna. In fact, it is just possible that in early times Bhādāna was used as a Prākṛit form of Vāṭadhānam, though in later times Bhādānaka itself came to be used as a Sanskrit name. This may explain why in early Sanskrit texts we do not find any mention of the ancient town of Bhādānaka. The Vāṭadhānas also disappear in later days.

To return to Al-Bīrūnī. Uddehika was near Bazāna according to his information. Some Uddehika coins were found at Rairh. So, it may have been also near about Rairh. I should therefore suggest that Uddehikā, the capital of the Uddehika-country, is to be identified with Barī Udāi (Gangapur tahsil, Jaipur State). This village is about 40 miles NE. of Rairh, and about 92 miles ESE. of Naraina (Bazāna). The ancient mounds existing at this site vouchsafe the antiquity of the village.

S. K. DIKSHIT.

15. G.O.S., I. (1934), p. 301.

16. 'बाह्यिका ( बाल्हीका ) बाटधानाय आमीरा; कालवीयका; 1'

17. Manu. II. 38-39; X. 20-21.

18. Sabhā. 32. 7-10, (Chitrāśālā ed.); 49. 24; 51. 5f.; etc.

19. Ādiparva (Bhand. O.R.I.), 61. 58-61.

20. P. C. Roy's ed., 19. 30.



( 2 )

## THE CHAIN OF JUSTICE

In *I.C.*, Vol. VII, pp. 1-2, Prof. H. C. Raychaudhuri has written an interesting note on Jahāngīr's "Chain of Justice." During the early years of this Mughal King's reign he gave orders to fasten one end of a gold chain, 30 *gaz* in length and 4 maunds in weight and containing 60 bells, to the battlements of the Shāh Būrj of the Agra fort and the other end to a stone post near the Jumna. If the persons responsible for the administration of justice should delay or practise hypocrisy, the oppressed might go to shake the chain, so that its noise would attract the emperor's attention.

It is very interesting to note in this connection that an Indo-Chinese contemporary of Jahāngīr, who reigned in the period between 1605 and 1627 A.D., adopted the same practice. This is Anaukpetlun who ruled from 1605 to 1628 A.D. and belonged to the famous Toungoo royal dynasty of Burma. It is known that in 1622 A.D. Anaukpetlun "set up at his palace [at Pegu] a great bell with an inscription in Burmese and Talaing which says that it was placed under a double roof where the sound could reach his ears and all who had a grievance could strike it and claim his attention" (G. E. Harvey, *History of Burma*, 1925, p. 191). It may be noticed that both Jahāngīr and Anaukpetlun ascended the throne in 1605, but the latter hung up the Bell of Justice about 17 years later than the former.

There was always brisk communication between India and Burma. The Buddhist monks of Burma often visited the Bodhgayā temple on behalf of the Burmese Kings. Anaukpetlun's celebrated predecessor, the great Bayinnaung (1551-81 A.D.), is reported to have sent to Bengal several missions, one of which, according to the Burmese chronicles, met a little before 1579 A.D. Emperor Akbar (father of Jahāngīr) in his palace at Fatehpur Sikri. It is therefore not improbable that the Burmese King Anaukpetlun got the idea of the Bell of Justice from the example set by his Mughal contemporary. It must however be admitted that the idea reached Indo-China from India or Ceylon much earlier than the 17th century. Rāmarāja or King Rām Khamhaeng (end of the 13th cent. and beginning of the 14th) of the Sukhothai (=Sukhodaya) dynasty of Siam is also known to have hung up a Bell of Justice with the same purpose (*Journ. Siam Society*, VI, i, p. 26).

When Thirithudamma i.e. Śrīsudharma (1622-38 A.D.), King of Arakan, raided Moulmein and Pegu, he took away Anaukpetlun's Bell

of Justice and set it up at a pagoda near Mrohaung, his capital. During the First Burmese war in 1824-26 A.D., a Hindu officer of irregular horse is said to have taken it to Aligarh, U.P. (*J.A.S.B.*, 1838; Harvey, *op. cit.*, pp. 145, 174).

DINES CHANDRA SIRCAR.

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( 3 )

### A NOTE ON NOLAMBA POLALCORA II.

In his interesting article on Nolamba Polalcōra II on pp. 429 ff. of the April number of Volume VI of this journal, Mr. G. N. Salletore has, after an elaborate discussion, made out a genealogical table of the later Nolamba-Pallavas. He has based this pedigree mainly on three inscriptions, namely the Kambadūru record of Polalcōra,<sup>1</sup> the Karṣaṇapalle epigraph of Mahendra<sup>2</sup> and the Nēlapalli inscription of Iṛiva-Nolamba.<sup>3</sup> But a correct understanding of the last mentioned record would show that the pedigree of the Nolambas as set forth by him is not acceptable. This inscription gives the genealogy of the family as follows :—Iṛiva-Nolamba (Ekavākya), his son Nanni-Nolamba, his son Polalcōra, his son Vīra-Mahendra, his son Vākyadeva, his younger brother Iṛiva-Nolamba-Ghaṭeyaṅkakāra (*Pallavāditya*).<sup>4</sup> The portion specifying the relationship between Mahendra and his son Vākyadeva and Iṛiva-Nolamba-Ghaṭeyaṅkakāra reads :—*Vīra-Mahēndram—ātana māgaṅ Vākyadēvan—ātana tamman—Iṛiva-Nolamba Ghaṭeyaṅkakāra*

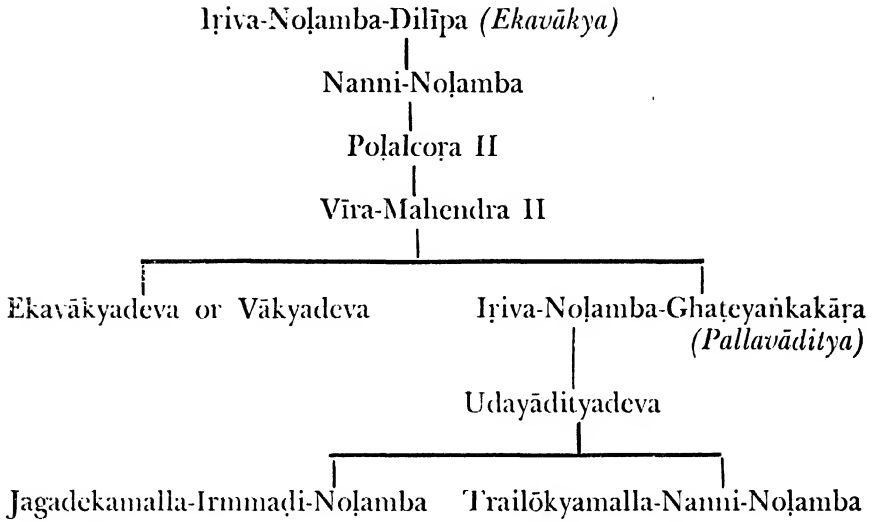
1. *South-Indian Inscriptions*, Volume IX, No. 30.

2. *Ibid.*, No. 39.

3. *Ibid.*, No. 41.

4. It may be pointed out here that the Nēlapalli inscription does not declare Iṛiva-Nolamba-Ghaṭeyaṅkakāra to be the son of Vākyadeva as stated in the *Annual Report on South Indian Epigraphy* for 1914 (part II, para 37) and *ibid.* for 1931-32 (part II, para 8).

*Pallavādityam*. Here the expression *māgam* is apparently a mistake of the engraver for *magam* meaning 'son.' That this is the correct way of interpreting the text of the record is proved by the Māgāṇḍalapalle inscription of Iṛiva-Noḷamba-Ghaṭeyaṁkakāra which furnishes the genealogy of the family in almost identical words as those of the Nēlapalli inscription. For ready reference I reproduce below the relevant passage from its text, which is published, with a facsimile, in the *Annual Report on South Indian Epigraphy* for 1931-32 (part ii, para 8): *Svasti* [1\*] *Samadhigata-panca-mahāśabda[m̃] mahā-Pallav-ānvayaṁ śrī-Prthuvi-vallabhaṁ Palla[va]-kula-tiḷakan = Ēkavākyam Kāñcīpura-paramēśvaraṁ śrīmad-Iṛiva-Noḷamban=ātana magam Na-[nni-No]lamban=ātana magam Poḷalcōradēvan=ātana magam Vīra-Mahēndran=ātana magam Ēkavākyadēva[m̃] ātana tammaṁ Iṛiva-Noḷamba Ghaṭeyaṁkakāra Pallavādityam*. It will be clear from the above extract that except for the title *Kāñcīpura-paramēśvaraṁ* applied to the first named Iṛiva-Noḷamba, the word *magam* (=son) used here correctly to express the relationship of Ekavākyadeva with his predecessor Vīra-Mahendra and the name Ekavākyadeva of the elder brother of Iṛiva-Noḷamba-Ghaṭeyaṁkakāra in the place of Vākyadeva found in the Nēlapalli inscription, there is no difference whatever between the genealogical accounts of these two epigraphs. They establish beyond doubt that Vīra-Mahendra had two sons Ekavākyadeva or Vākyadeva and Iṛiva-Noḷamba of whom the latter was the younger. There is therefore no need to emend the words *Vīra-Mahēndran=ātana māgam* (mistake for *magam*) *Vākyadēvan* found in the Nēlapalli inscription into *Vīra-Mahēndran=ātan=Amōghavākyadēvan* and to consider *Amōghavākya* as a *biruda* of Vīra-Mahendra, as Mr. Saletore has done. It is thus evident that *māgam* of the Nēlapalli inscription is, as already stated, only a mistake for *magam* and that the division of words followed in the published text of this record in Volume IX of the *S.I.I.* is faultless. Vākyadevaṁ may be either a shortened form of or mistake for Ekavākyadevaṁ. The misunderstanding of the Nēlapalli inscription has led Mr. Saletore to the error of taking Mahendra II and his son Ekavākyadeva or Vākyadeva as one and the same person and reducing the five generations of the family enumerated in the epigraph to four. With the rectification of this error and with the addition of the information obtained from an inscription at Morigeri<sup>5</sup> which carries forward the lineage by two more generations the revised genealogy of the later Noḷamba-Pallavas from Iṛiva-Noḷamba (Dilīpa) downwards would stand as given below :—



As other branches of this dynasty are beyond the limited scope of this short note they have not been taken into account here.

Now that it has been shown that Iṛiva-Noḷamba-Ghaṭeyaṅkakāra was a son and not the younger brother of Vīra-Mahendra II, as suggested by Mr. Saletore, the Mahendra who had a younger brother named Iṛiva-Noḷamba must be regarded as different from Vīra-Mahendra II. Consequently the supposition that Poḷalcōra, whose two sons were Mahendra and Iṛiva-Noḷamba, is identical with Poḷalcōra II is not borne out by facts. It appears to me, therefore, that until future discoveries reveal the existence of a Poḷalcōra who had two sons bearing the names Mahendra and Iṛiva-Noḷamba, we cannot lightly set aside the late Rao Bahadur H. Krishna Sastri's surmise that Mahendra (I) and Iṛiva-Noḷamba (I) were the sons of Poḷalcōra I by two different wives.<sup>6</sup> Dīvalabbarasi, the queen of Poḷalcōra, mentioned in the Āvani inscriptions<sup>7</sup>, may therefore be considered as the mother of Iṛiva-Noḷamba (I), while the mother of Mahendra (I) was Jāyabbe. The expression *puttīda-maganī* (i.e. son born to her) used with reference to Iṛiva-Noḷamba in Mb. 38 is significant and seems to have been deliberately employed in order to indicate that Mahendra, though described as the son of this queen, was not her own son but her stepson. The practice of calling or describing stepsons as sons is not

6. *Epigraphia Indica*, Vol. X, pp. 61 and 62.

7. *Epigraphia Carnatica*, Vol. X, Muḷbāgal (Mb.) 38 and 50.

uncommon in inscriptions or literature and this custom exists even today in Hindu society.

Incidentally it may be observed that it does not seem proper to construe the clause *kanīya-nandanana rājyaman=īkṣisug=āva kālā-muni* occurring in Mb. 38 as 'that great one's mother (i.e. Dīvalabbā-rasi) . . . was looking forward to the time when her younger son should come to the kingdom.' I would translate it as 'may the great one's mother . . . see always the kingdom of her younger son,' that is to say, may her younger son rule the kingdom for a very long time under the guidance of his mother.

N. LAKSHMINARAYAN RAO

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( 4 )

### DRAMAS BASED ON EPIC PLOTS

The late Dr. Dinesh Chandra Sen in his interesting book *The Bengali Rāmāyaṇas* has discussed the legends and ballads connected with Rāma to which Vālmīki owes his plot of the Rāmāyaṇa. In this masterpiece he has combined many legends skilfully into a well-connected whole. Sen goes on to show how some of the episodes disregarded by Vālmīki were later on included in the epic to please the people or some sect to which the writer or the singer belonged (*Op. Cit.*, p. 61). This process developed further when the provincial vernaculars began to take the place of Sanskrit. Rāmāyaṇa in Sanskrit had become unintelligible to the masses except to a select few ; so the idea to render the epic into the vernacular was conceived. The vernacular versions were not mere translations of the original poem. The poets in rendering the original story into the provincial dialect used their talent and imagination and presented the Rāmāyaṇa in the form in which it was generally known to the people of their times. In doing so they had to omit some incidents, suppress others and make a few additions from the ballads, which though not reduced to writing had been passed on orally from generation to generation and could be traced back to a remote antiquity. In Bengal alone Sen names half-a-dozen poets who composed Rāmāyaṇa or sung themes connected with it in the language of this province. They all agree in the main outline, but differ slightly not only from Vālmīki's Rāmāyaṇa but from each other also in point of the number of Rāma-

episodes included in them. Some of them give very funny stories such as Rāma had four wives and Lakṣmaṇa eight wives. Lakṣmaṇa is also represented as making love to a princess during the time of exile (Op. Cit., p. 207-208). This is not in keeping with the tone of the original Rāmāyaṇa. Śaiva, Vaiṣṇava and Śākta influences are also to be traced in these poems, as the poets wanted to establish the doctrines of their respective sects through the pages of the Rāmāyaṇa. Some of the noteworthy Bengali Rāmāyaṇa writers, who still sway the public mind were Kṛtīvāsa, Candrāvātī, Raghunandana and Kavicandra. Sen has done admirable service to the historical and critical study of the Rāmāyaṇa and has opened a new field for the scholars to carry on research in this department.

If such were the versions of the Rāmāyaṇa in the province of Bengal, we can very well imagine the number of recensions and versions of it prevalent in the whole of India. In the provincial versions there was a difference in the minor episodes only, the treatment of the story on the whole was the same. But there were two different trends in the story of Rāma current in the north and south India. The northern version laid stress on the prominence of Rāma, while the southern treated his story as supplementary and gave the first place to Rāvaṇa and the monkeys. This is to be found in Hemacandra's Jaina Rāmāyaṇa (Bengali Rāmāyaṇas, p. 31).

It is clear now that there were many versions of the narrative of Rāma contained in the different Rāmāyaṇas. Sanskrit poets and dramatists borrowed their plots generally from the epics and selected sometimes one, and sometimes the other from the popular versions for the embellishment of the story. The discrepancies in some Sanskrit dramas can be explained away on this supposition only. We will take the dramas based on the Rāmāyaṇa first. Bhavabhūti, a celebrated dramatist, describes Vāli-vadha in two of his dramas, namely, Mahāvīra-carita and Uttara-rāma-carita. In the former he says that Vāli came to kill Rāma as an agent of Rāvaṇa and both of them started together for the battle-field. Vāli disappeared on the way and after some time Rāma saw a deer and killed it, which changed its form and became Vāli on being hit. Rāma was dismayed to find that he had killed Vāli like an animal : *Mayā bāṇena tikṣṇena mṛgo hṛdi vidāritaḥ. Adri-rāja-pramāṇena Vāli-rūpa-dharo mṛgaḥ* (Mahāvīra-Carita, act VI. 1.). Vāli after his death assumed the form of a celestial person and explained that his strange disappearance was the result of a curse, which had changed him into a deer : *Sa evāyaṃ śāpo yad ahaṃ saṃgrāma-bhūmim prati tvām anugacchan antarā mṛgo bhūtvā svarūpaṃ viśmṛtya palāyitaḥ* (M. V. Carita, VI, prose after śloka 5th). This is the story given in the Mahāvīra-carita edited by

T. R. Ratnam and others. Calcutta edition of the same play published under the supervision of Mr. A. Barooah does not mention the curse or Vāli's disappearance but relates that he was killed in open fight. Both these stories are different from that of Rāmāyaṇa which states that Rāma killed Vāli in order to oblige his (Rāma's) friend Sugrīva, by unfair means. This is referred to by Bhavabhūti in the Uttara-rāma-carita, where he puts these words in the mouth of Lava : *Dhanyās te na vicāraṇīya-caritās tiṣṭhantu kinī varṇyate, Sunda-strī-mathane, py akunṭha-yaśaso loke mahānto hi te. Yāni trīṇy aparāṇi mukhāny api padāny āsan kharāyodhane, yad vā kauśalam indra-sūnu-nidhane tatrāpy abhiṣṭho janah.*—(Uttara-rāmacarita, act V, verse 34). Neither of the passages seems to be unworthy of credence. This difference in the writing of the same author is very difficult to account for. Bhavabhūti is justified in changing the story in the first play according to the writers on dramaturgy, one of whom, e.g., Viśvanātha, says : *Yat syād anucitain vastu nāyakasya rasasya vā. Viruddham tat parityajyam anyathā vā prakalpayet* (Sāhitya-darpaṇa, VI. 50). If Bhavabhūti changed the narrative in the Mahāvīra-carita to paint Rāma as a faultless hero, why did he refer to Rama's resorting to unfair means in killing Vāli in the Uttara-rāma carita? Rāma is the hero in both these plays : so his character should be without any blemish in both. If the dramatist changed the story in order to remove the blame from the hero in one play, he should not have condemned him for the same act in the other play. This contradiction can be explained away on the supposition that in the province where the author lived and wrote, there was also a recension of the Rāmāyaṇa which described Vāli-vadha in the same manner as the Mahāvīra-carita did. Vāli-vadha is not the only episode in this play which differs from Vālmīki's Rāmāyaṇa. There are other points also, where Bhavabhūti deviates from the narrative of the Rāma given in the Rāmāyaṇa. This also shows that he might have seen some other version of the epic. This popular version might have been prevalent in the country where Bhavabhūti lived or wrote, side by side with the classical version, which he seems to have followed in the Uttara-rāma-carita.

The Mahābhārata must similarly have undergone a multiplicity of versions not only in regard to the main narrative but also the minor incidents. These must have increased in number in course of time like those of the Rāmāyaṇa. The evidence of Sanskrit dramas which are based on the stories from the Mahābhārata amply prove this. Some of these versions given in the dramas are not to be found in the classical recension. This shows that the plots which cannot be traced back in the present recension might have

been contained in some popular versions. Two of the dramas, namely *Pañca-rātra* and *Urubhaṅga* ascribed to Bhāsa, give episodes which are not only contradictory to each other, but one of them, i.e., the story in *Pañca-rātra*, has no parallel in the present version of the *Mahābhārata*. 'This play gives us a glimpse into the affairs of Duryodhana during the last days of the Pāṇḍavas' exile. Duryodhana had finished a sacrifice, and as sacrificial fee Droṇa succeeds in exacting a promise from him of bestowing half the kingdom on the Pāṇḍavas. To make the promise futile, Duryodhana put forward the condition that he would do so only if the Pāṇḍavas were brought to him within five nights. Bhīṣma and Droṇa try to get some news of the Pāṇḍavas, and learn that they are hiding themselves in Virāṭa-nagara. So Bhīṣma incites Duryodhana to raid the place. In the fight that follows Yudhiṣṭhira and his brothers are recognised, and Duryodhana is made to give them half of the kingdom. According to this drama no pretext is left for the great battle of the epic, and the family feud is settled in a peaceful manner. 'The incident of *Uru-bhaṅga* or 'the Shattering of thighs' could never have taken place after the events which are described in the first. *Urubhaṅga* is a one-act play and describes the mace-fight between Bhīma and Duryodhana when the great battle was nearly over. Bhīma breaks the thighs of Duryodhana and rushes off from the battle-field being afraid of Balarāma. Duryodhana is found by his parents, whose pathetic lamentation and the resigned acceptance of his fate bring the drama to a close. 'The contradictory nature of the themes of both these plays is apparent. While the first does not leave any cause for the battle, the second gives details of the devastating fight, which could never have been fought according to the first. Bhāsa in the drama *Urubhaṅga* has ignored the rule of dramaturgy as he shows a death on the stage. This difference in the plots would lead one to say that the dramas are not from the same pen. But the internal and external evidence proves that this is not the case. These inconsistencies can be ascribed to the poet's having read two different versions of the story from which he selected one for one drama, and the other for the other. The story of the first drama might have been taken from some earlier legend or version, in which the Pāṇḍavas received their share without fighting for it at all. This is not improbable as the scholars have agreed that the Kauravas were not so bad as they have been made out to be. So they might have given half of the kingdom to the Pāṇḍavas on their return from exile. Bhāsa also has represented Duryodhana as a forgiving, noble and modest ruler.



( 5 )

## A NOTE ON THE AJANTĀ INSCRIPTION OF THE VĀKĀṬAKAS

The Ajantā inscription is one of the few Vākāṭaka records on stone. It belongs to the reign of Hariṣeṇa, the last known king of the dynasty. Unfortunately much of it is defaced and the readings are at times doubtful. Making allowance for these obliterated portions, there are certain glaring discrepancies, which make one pause and think whether the family whose exploits are recorded in this inscription, is not different from that of Pravarasena II, son of Prabhāvatiguptā and grandson of Candragupta II.

One of these discrepancies is that Rudrasena I (?) is called here the son and not a grandson of Pravarasena I, as in the land grants. Again, the omission of Rudrasena II's name makes Pravarasena II the son of Prthiviṣeṇa, while the grants insert Rudrasena II between them.<sup>1</sup> The arguments advanced in explaining the absence of the names of Narendrasena and Prthiviṣeṇa II<sup>2</sup> who certainly preceded Hariṣeṇa, presumably the last king of the Vākāṭakas, are hardly convincing. The confusing evidence in the last instance is felt by most scholars. Thus Prof. Dubreuil<sup>3</sup> remarks : "It is impossible to know if Devasena reigned at the same time as Prthiviṣeṇa II or after." Considering the fact that this inscription possibly belongs to the last king of the Vākāṭakas, is it not a little curious that it would fail to mention the matrimonial alliances of the family with the Kadambas and the Guptas.

Until recently, the possibility of the Vākāṭakas having branches was not seriously thought of. The recently discovered Vatsagulma plates,<sup>4</sup> however, indicate a different state of affairs. It gives us the name of Vindhyaśakti, who, as the inscription tells us, was the son of Sarvasena and grandson of Pravarasena. It was at first assumed that the grant belongs to Vindhyaśakti the founder of the dynasty. Dr. D. C. Sircar<sup>5</sup> has, however, pointed out on paleographical grounds that the grant belongs to a Vindhyaśakti II, and the Pravarasena of the inscription, from the epithets applied to him, could be no other than

1. See *Remarks, A.S.W.I.* Vol. IV, p. 128.
2. *Balaghat Plates, E.I.* Vol. IX, p. 269 ff.
3. *Ancient History of the Deccan*, p. 76.
4. *Proceedings of the Third History Congress*, p. 459 ff.
5. *I.H.Q.* March 1940, p. 182 ff.

Pravarasena I. There seems little ground left now for a difference of opinion with him.

The name of Sarvvasena can be clearly and unmistakably read in line 6 of the Ajantā inscription. This line has been read up till now as “(Ru)drasena Pravarasenasya jita sarvvasenas suto bhavat”<sup>6</sup> (Rudrasena who vanquished many armies was the son of Pravarasena I). On a careful examination of the plate it is possible to find a wider gap between what has been read as ‘dra’ and the next letter ‘sa’ or ‘se’ than what is usually found between two letters in this line. The gap seems to be filled with a letter which I suggest to be a ‘śa’ with the ‘ākāra’ sign touching the horizontal stroke of the next letter ‘sa’. What has been read as ‘dra’ seems to be ‘gra’, which is preceded by a conjunct with a subscript ‘ya.’ This may be read as ‘tyu.’ Instead of (Ru)drasenaḥ, therefore, we can read ‘(atyu)graśāsanah.’ Again instead of reading ‘Pravarasenasya jita Sarvvasena’ we would be quite justified to read ‘Pravarasenasya jita Sarvvasenas suto bhavat’, if we take into account the stroke on the top of ‘sa’ in the conjunct ‘sya.’ The line would thus read “(atyu)graśāsanah Pravarasenasya jita-Sarvvasenas suto bhavat”. (The son of Pravarasena, the unconquered Sarvvasena whose commands are highly imperious). In l. 23 of the Allahabad inscription<sup>8</sup> Samudragupta is called a ‘pracaṇḍśāsanah.’ Similarly Sarvvasena may have been eulogised here as ‘atyugraśāsanah.’

The name of Sarvvasena’s son Vindhyaśakti II may also be suggested with plausibility in line 7 v. 8 of this inscription, which reads “(tanayas tasya) pāṛthivendrasya praśa(śā)sa dharmena medinī(m) Kuntalendra(m) vi(jitya) (Pr)thivī(śeṇah). The reading Prthivīṣeṇa is very doubtful. It seems to have been suggested only on an analogy with the land grants. Of the two letters that can be read without difficulty, one is beyond doubt ‘vi’, the other which is less clear and has been read as ‘thi’ seems also to be a ‘vi’. The letter following this second ‘vi’ is a blurred conjunct with a loop of ‘na’ clearly traceable. The visarga sign at the end of the word is clearly visible. The letter preceding it is a conjunct with a sign of i-mātrā clear on its top. The reading proposed here in the light of the above observations is, therefore, (bhu)vi Vin(dhyaśakti)ḥ. The writer of the inscription seems to have had a fancy for this kind of phrases. Thus in l. 2 v. 2 we find ‘bhuvi Vindhyaśaktiḥ’, in l. 11 v. 11 bhuvi Devasenah ; in l. 10 v. 12

6. A.S.W.I. Vol. IV, Pl. Lvii.

8. Fleet, Corpus Insc. Ind. III.

9. A.S.W.I. Vol. IV, p. 125, f.n. 1.

'*bhuvi Hastibhojah*', and again in l. 15 v. 17 the same expression is used. In suggesting the new readings in place of the old ones it is worth our while to remember the remarks of Burgess,<sup>9</sup> who has himself admitted that the readings of the important lines from 5 to 7 "must remain uncertain, as it has not been possible to determine accurately the metre of the very important verses 6-8, which have baffled Pt. Bhagawanlal also." The readings proposed here perhaps justify the exigencies of the metrical system.

Dr. Sircar<sup>10</sup> has placed two alternatives before us regarding the reign periods of Sarvvasena and Vindhyaśakti II. We can either regard them as coming in between Pravarasena I and Rudrasena I or as belonging to a collateral line which rose to royal distinction under Sarvvasena. In view of the discrepancies noted above and the new readings suggested, the latter alternative seems to be more acceptable. The family whose exploits are recorded in the Cave no. 3 of the Ajanta Inscription is different from the main Vākāṭaka family and identical with that of Vindhyaśakti II of the Vatsagulma copper plate.

It would be tempting to suggest that the untimely death of Gautamīputra, the heir-apparent of the kingdom, was responsible for a split in the dynasty after the death of Pravarasena I. In the struggle that followed between Rudrasena, the nephew and his uncle Sarvvasena, the timely help rendered by Bhavanāga of Bhāraśivas possibly saved his grandson from utter ruin. It is perhaps in grateful acknowledgment of the deed that the names of the Bhāraśiva relations are recorded in an exalted manner in the grants of the Vākāṭakas. In the annals of Indian history such contests for the crown between an uncle and a nephew are no uncommon facts.

The family under Sarvvasena, therefore, seems to have established a separate kingdom with its capital at Vatsagulma or Bassim in Berar. It is interesting to note in this connection that a grant of Devasena is also issued from Vatsagulma. Mr. Randle<sup>11</sup> has well argued that the absence of such qualifying phrases as '*vāsaka*' '*tīrtha*' etc. indicates that it was a capital. Sarvvasena's son Vindhyaśakti II ruled at least for thirty-seven years. It would not be inconsistent, therefore, to ascribe to him the credit of the conquest of Kuntala, which, if the new reading is accepted, goes to him.

In the tentative genealogy given below, the date of Pṛthivīseṇa II falls on 485 A.D. This brings us to the end of the main family

10. *Ibid.* p. 186.

11. *New Indian Antiquary*, June 1939, p. 177 ff.

of the Vākāṭakas. The crises referred to in the Balaghat plates of Pr̥thiviṣeṇa II was possibly the first Huna invasion from which Skandagupta saved his empire. It may be that Pr̥thiviṣeṇa II joined hands with Skandagupta in this strenuous struggle against the common enemy. But the family of Pr̥thiviṣeṇa II could not possibly have survived a renewed onslaught of the Hunas which happened shortly after the end of Pr̥thiviṣeṇa II's reign.

Vindhyaśakti<sup>12</sup> (248-284)

Pravarasena I (284-344)

Gautamīputra

Sarvvasena (344-370)

Rudrasena I (344-348)

Vindhyaśakti (370-407)

Pr̥thiviṣeṇa I (348-375)

Pravarasena III (407-432)

Rudrasena II (375-395)

Son (432-462)

Prabhāvatiguptā, as regent  
(395-405)

Devasena (462-487)

Pravarasena II (405-435)

Harisena (487-517)

Narendrasena (435-470)

Pr̥thiviṣeṇa II (470-485)

AKHIL BANDHU BISWAS.

12. K. P. Jayaswal—History of India, 150 A.D. to 350 A.D., p. 111. The dates assigned in this table to the kings of the main family mostly correspond to those given by Mr. Jayaswal in the genealogical table of this dynasty in the above book p. 79.



## REVIEWS

EARLY MONASTIC BUDDHISM, Vol. I. (Calcutta Oriental Series no. 30)  
by Dr. Nalinaksha Dutt, Calcutta, 1941.

This book consists of twenty chapters on geographical location of Vedic and Buddhist culture, early Indian thoughts and beliefs, the religious of ancient India, the six Tīthiyas, other non-Buddhistic doctrines, the Tathāgata, doctrine of anattā, appearance of Buddha, causes of the spread of Buddhism, method of preaching and teaching, spread of Buddhism, the middle path, the moral precepts, the Buddhist meditation, the fundamental principles, growth of the Saṅgha, ecclesiastical acts and punishments, the Pātimokkha, constitution of the Saṅgha and the First Buddhist Council. The book is, on the whole, very useful. The author has ably treated the chapters dealing with the spread of Buddhism and the causes for the spread. The growth and constitution of the Saṅgha ought to have been dealt with in one chapter. He has utilised all the current literature on the subject, especially the original sources; but in some places the treatment is too brief and meagre, e.g., other non-Buddhistic doctrines. A serviceable Index at the end of each volume would have been better. It seems that the book is especially meant for students, but I am confident both students and scholars will be benefited by it.

B. C. LAW

VERELST'S RULE IN INDIA by Nandalal Chatterjee. The Indian Press  
Rs. 10/-.

This is a detailed study of the problems of Verelst's administration in Bengal (1767-69). The subject is undoubtedly an important one and deserves special study, particularly because the period illustrates the dual system at actual work. Clive, the author of the dual system, had left Verelst to run it, and from the point of view of the history of the development of British administration in Bengal, Verelst's rule is of great interest as showing how he sought to work it and failed. Dr. Chatterjee sees this clearly, but had he made this his main thesis his presentation of the subject matter would have greatly improved. This volume is useful to the student of history because it gives all the details about Verelst's administration in one place, and has advanced our information on the period. But the reader finds no background. The work begins abruptly and the chapters remain isolated from one another, as if they were

a collection of articles now printed together. While there is a very good concluding chapter, the work as it is would have been improved by putting in a prefatory chapter. In many places references to sources have not been clearly indicated, e.g., footnote No. 15 on page 217, Nos. 18, 20 and 21 on page 242, No. 52 on page 257 etc. etc. These are references to letters, but there is nothing to indicate where they occur. In one place at least there is an unnecessary increase in the number of the footnotes. Footnote No. 30 on page 267 could go under No. 29 as an additional reference. Then again, as in the numbers already quoted, No. 29 on page 267 refers to a letter from Warren Hastings, Nov. 3, 1772. We are not told to whom it was written or where it can be found. No. 30 on page 267 refers us to a letter from the Committee of Circuit. We are not told to whom it was addressed, and on what date. We are referred to the "Opus Citu", but we are not told which page. The footnotes should be thoroughly revised in order to make the work useful to research scholars.

A. P. DAS GUPTA

THE NUMBER OF RASAS : by V. Raghavan, M.A., Ph.D.

This book is a store-house of all that has been said on this topic. Dr. Raghavan has drawn copiously upon the works of authors well-known as well as unknown and also from some unpublished manuscripts. He presents these materials in a well-arranged order. He has treated such other topics as the Sthāyībhāvas, the possibility of a Vyabhicārī becoming a full-fledged Rasa, the question whether all the Rasas are pleasurable, the acceptance of Rasābhāsas as Rasas and the synthesis of Rasas. He discusses at length the great controversy over Śānta — whether it can be represented as a Rasa or not. He has examined it not only critically but also historically and has traced the influence of Jaina and Bauddha religions on the final acceptance of Śānta. He has shown that all the references to Śānta in Bharata's Nāṭya-Śāstra are not genuine, and that some are later additions. The text of *Abhinavabhāratī* on Śānta Rasa, corrected by Dr. Raghavan after consulting other manuscripts, is also given. He has tried to find historical truths in the mythical stories about this system. He thinks that Brahma(bharata) and Śiva(bharata) are not mythical names but actual writers. When Śānta was accepted, the controversy turned round the Sthāyī for Śānta, for which at least half a dozen names were put forward and rejected.

The acceptance of Śānta introduced a new era, which marks the beginning of the increase in the number of Rasas. Varieties of the same Rasa were accepted as separate Rasas and the number became thirteen. Prominent among these Rasa-makers are Bhoja and Haripāla, whose views are discussed

by the author. The chapter on the synthesis of Rasas is very interesting as it clearly shows that the syncretisation was going on in this department also, as in other branches of the Indian studies and culture and reflects the Indian mentality of finding out unity in diversity. The book also throws light on the Rasa system. It is a deep and comprehensive study of the problems connected with Rasa.

PADMA MISRA

STUDIES IN THE TANTRAS, Part I, by Prabodh Chandra Bagchi, pp. vii+109, published by the University of Calcutta, 1939.

Dr. Bagchi has presented in this slim volume a collection of eight articles on the Tantras which he had published before in the Indian Historical Quarterly and the Calcutta Oriental Journal. They contain the results obtained by him from an examination of manuscripts in the Nepal Darbar Library. In the first article "Tantrik Texts Studied in Ancient Kambuja" the author has shown that the four Tantrik texts mentioned in the Inscription of 802 A.D. of the reign of Jayavarman II are partly preserved in old MSS. in the Nepal Darbar Library (p. 15), and he states in his "Further Notes" that it is wrong to suppose that the Mahāyāna Buddhism of Kambuja in the 8th-9th century was very much antagonistic to Tantrik Śaivism (p. 25). In the short note on Sandhābhāṣā the author has given a number of words of this cryptic language. It may be mentioned in this connection that the intentional use of words to indicate things they do not signify in ordinary speech is a very old linguistic phenomenon (see Güntert, Die Sprache der Götter und Geister; Benveniste, "Une différenciation de vocabulaire dans l'Avesta" in *Studia Indo-Iranica—Ehrengabe für Wilhelm Geiger*). In the note on the Sādhana-mālā some of the views of Dr. Benoytosh Bhattacharyya have been criticised, and Tibetan influence on Tantras has been traced in the study "On Foreign Element in the Tantra." At the end the author gives a note on the word *parāvṛtti*. The words *anuvṛtti* and *vyāvṛtti* are well known in philosophical literature. But what is "*parāvṛtti*" used by the Vijñānavādins in the phrase *āśrayasya parāvṛtti*? Towards the end of his Triṃśikābhāṣya, Śhīramatī has given us something like a peroration on this subject, but the meaning, I fear, remains obscure. To me it seems that the Vijñānavādins meant by it the process of progress towards *advaya-jñāna* by which the object of consciousness, by successive stages, tends to coincide with pure consciousness. But Dr. Bagchi here shows that the word *parāvṛtti* was used also in a mystic sense.



**ORIENTAL MANUSCRIPTS** of the John Frederick Lewis Collection in the Free Library of Philadelphia. A descriptive catalogue with forty-eight illustrations by Muhammed Ahmed Simsar, Philadelphia 1937.

The number of manuscripts described in this magnificent volume is not very large—altogether 153. But they are rich in variety, and the author expects that some of them will appeal to the lovers of rare bindings, some to the students of miniature painting, and some to those interested in illumination and calligraphy. Mr. Simsar evidently does not expect that anyone of these manuscripts will appeal to anybody on account of its contents. But that is wrong. In the Arabic section, for instance, there is a very rare abridgment of Bayḍāwī's work (No. 23), which is possibly the only copy in existence. In the Turkish section we have, for instance, "The Last Will and Testament of Ahmad Pāshā" (dated 1511) who by it left most of his wealth to charity. In the Sanskrit and Pāli section, it is true, there is nothing particularly valuable.

BATAKRISHNA GHOSH

**MUSÉE LOUIS FINOT : LA COLLECTION KHMÈRE** par Henri Marchal, pp. 170; 12 plates; Hanoi 1939.

Apart from the descriptive catalogue of Khmer art-objects in the Louis Finot Museum, this dainty little volume contains two brilliant essays by M. Marchal on Cambodia architecture and Khmer statuary. To readers in a distant country like ours who, in spite of great interest in the art and architecture of Hinter India, can hardly hope to be able to make proper use of this guide by visiting in person the Musée Louis Finot, these introductory essays will surely prove to be of entrancing interest. Khmer architecture reached its apogee in the Ankor Vat—that astounding monument of Cambodian art, built with the blood and bones of the oppressed people. As M. Coedes has beautifully expressed it, "arrivé à l'apogée de sa puissance, le peuple Cambodgien succomba sous le fardeau écrasant de la gloire de ses rois." Cambodian statuary of the seventh century was chiefly of Gupta and Pallava inspiration, but M. Marchal has shown how it gradually emancipated itself.

BATAKRISHNA GHOSH

**THE ŚRIKARABHĀṢYA**—Vols. I & II—edited by C. Hayavadana Rao. Vol. I Introduction pp. lii+888. Vol. II Texts pp. xiii+572. Price of vols. I & II Rs. 15/-. Published by the Bangalore Press, Mysore Road, Bangalore.

Of all the Systems of Philosophy that have arisen and developed on the congenial soil of India, the Vedānta System commands the highest position, as

it comprehends and transcends all other systems, inasmuch as this system includes in its fold ten different schools which represent the metaphysical doctrines promulgated by other Indian Systems of Philosophy. Almost all of the monumental commentaries of different Schools have been published from various places and some of them have been translated into other languages. But unfortunately this Śrīkara Bhāṣya was not so long brought to the notice of the scholarly world. It was once before printed in Telugu character and therefore had limited circulation. The writer of this review had once talks with MM. Pandit Gopi Nath Kaviraj, then Principal of the Benares Sanskrit College, to get the clue to the whereabouts of this commentary and subsequently found out a Telugu edition from the Jangam Bati Math of Benares. He wanted to get it printed in Devanāgarī character from Calcutta but was informed of the undertaking of this edition which was then going through the Press.

Just as other commentators of the Vedānta trace the origin of their schools from some great saint of pre-historic period, viz. Śaṅkara school is traced from Śukladeva, Nimbārka school from Śanaka etc., similarly this school representing the Vīra Śaiva stand-point is said to trace its origin to Reṇukā, an *avatāra* (incarnation) of Śiva Himself. It is also told that Reṇukā wrote a succinct commentary on the text of the Vedānta Philosophy which is lost. The author mentions that his commentary is based on the *Vṛtti* by Agastya. Just as Rāmānuja styles Viṣṇu as the Ultimate Being and holds the theory of qualified non-dualism, similarly Nīlakaṇṭha, Śrīkaṇṭha and Śrīpati present Śiva as the Supreme Being, and propound almost the same philosophical theory. A few other commentators, viz. Bhāskarācārya, Nimbārkaācārya, also hold the same view. The author of this commentary is usually known as Śrīpati Paṇḍitācārya and belonged to the 14th century A.D.

The commentary is called 'Śrīkara' or *Śivakara* (named after Śiva) as the author says he was inspired by Śiva himself to write it. Similar is the case with the commentary of the Bengal Vaiṣṇava school written by Baladeva Vidyābhūṣaṇa entitled "Govinda Bhāṣya", of which the author was inspired by Govinda himself.

The masterly introduction in English by the editor covering nearly 900 pages is a great contribution to the history of the Vedānta philosophy. Here he has dwelt length on all the other schools of the Vedānta and various other topics. The appendices at the end of both the volumes have supplied data for further researches. Verily his introduction is a mine of information to all lovers of the Vedānta system. Here we get information about one Śuka Bhāṣya and its *Ṭīkā*.

In fine, the editor of this excellent publication, in his masterly Introduction, which may rightly be called a history of the growth and development of all the different schools of the Vedānta, has expounded the views not only of the Ācāryas of different commentaries but has also compared them in some

cases with western philosophy, and has thus succeeded in assigning Śrīpati to his true position amongst the Ācāryas. It is not known why the author has not mentioned Nilkaṇṭhācārya's view-points who was also an expounder of the Vedānta thought based on Śaiva Culture. Had an Index of select Words been given at the end of Vol. I, references would have been easily obtained.

The style of the original Sanskrit is very lucid, simple and penetrating, and the author of the commentary has tried to combat the views of his predecessors in a masterly way.

This publication should be treasured by all libraries and serious students of Indian Philosophy. The printing and get-up are excellent and the price is moderate.

SATIS CHANDRA SEAL

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## IMPORTANT CONTRIBUTIONS TO ORIENTAL JOURNALS

*Annals of the Bhandarkar Oriental Research Institute, Vol. XXI, Parts I-II, 1940.*

Paisācī Language and Literature by A. N. Upadhye.—“The North-West of India was possibly the *original* home of Paisācī, but the dialect in the mouths of an itinerant tribe travelled in different parts of the country and was popular near Vindhya sometime before Rājasekhara.” Author accepts P. C. Bagchi’s theory that Cūlikā Paisācī might have been a variety of North-western Prākṛit spoken by Sogdians.

The Upapurāṇas by R. C. Hazra.—This essay is the introductory chapter of author’s forthcoming book in which he will deal with the Upapurāṇas in the same way as he dealt with the Purāṇas in his “Studies in Purāṇic Records.”

On the probable Date of Jaimini and his Sūtras by G. V. Devasthali.—“The latest date that can be given to Jaimini and his work can at the most synchronize with the earlier years of the life of Lord Buddha.” Author’s arguments are extremely vague and wholly unconvincing.

Concord in Prākṛit Syntax by A. M. Ghatage.—Excellent treatment of the subject. Can be profitably read by all students of Prākṛit.

Identification of Udayana of Kauśāmbī with Udayin of Magadha by H. C. Seth.

The Samādhilakṣmaṇam and the Bhagavadgītā by H. G. Narahari.—The work is an imitation of the Gītā to which it is indebted for nearly half of its verses.

Maithili Equivalents to Vernacular Words found in Sarvānanda’s Commentary on the Amarakośa by Subhadra Jha.

Fresh and Further Light on the Mohenjo-Daro Riddle by A. P. Karmakar.—Author is upset that the Archaeological Department has nothing to say about the decipherment of the Mohenjo-Daro seals and has given his own suggestions which, it is to be hoped, will be generously ignored by the Archaeological Department.

The Dates of Nārāyaṇa Dikṣita and other commentators on the Vāsavadattā of Subandhu by P. K. Gode.—Nārāyaṇa Dikṣita’s is the first of the seventeen commentaries on the Vāsavadattā composed “after about 1250 A.D.”

*Aryan Path*, November 1940—January 1941.

Bharṭṭhari: A Great Post-Upanishadic Intuitionist by K. Madhava Krishna Sarma.—“Though mainly a work on Śabdaic Absolutism, the Vākyapadīya contains also discussions of various important philosophical topics.”

Light in Islamic Mysticism: the conception in later Sūfī teaching by Margaret Smith.

Tukaram's Conception of God by Chintamani Apte.

The Message of the Theory of Karma by H. G. Narahari.—“Neither Pessimism, nor Optimism, but only Meliorism, pure and simple, can be the genuine import of the doctrine of Karma.”

Art Experience by M. Hiriyanna.—According to Indian thinkers, Art is an “intimation” to man of the possibility of rising permanently above imperfections.

*The Asiatic Review*, January, 1941.

Exploration in Beluchistan by Sir Percy Sykes.—Short account of a journey in 1893.

*Bhāratiya Vidyā*, Vol. II, Part 1, November 1940.

Organic Periods in Indian History by K. M. Munshi:— Author insists that history must be the history of the people, and gives his own scheme of Indian history.

The Position of Linguistic Studies in India by V. S. Sukthankar.—A beautiful survey.

Nāgārjuna's Conception of Śūnyatā by P. T. Raju.—Śūnyatā is not relatively, but inexpressibility.

Gommaṭa by A. N. Upadhye.—Examination of suggested etymologies of the name.

Scholastic Disquisition in the Pāṇinian System of Grammar by S. P. Chaturvedi.—Brief survey of the Pāṇinian literature.

Kuruśravaṇa and Kuru-Saṁvaraṇa by A. D. Pusalker.—Author suggests that the name Kuruśravaṇa of the Ṛgveda was later corrupted into Kuru-Saṁvaraṇa.

Kuvalayamālā (A Jaina story of the 8th century A.D.) by Jinvijayaji Muni.

The Ninth Maṇḍala of the Ṛgveda by Manilal Patel.—Exhaustive notes on the preparation of Soma in Ṛgvedic ritual.

Two Vedic Verses by Aryendra Sarma.—Excellent philological analysis of two verses from Taittirīya Āraṇyaka and Maitrāyaṇī Saṁhitā.

*Bulletin de l'École Française d'Extrême-Orient, Tome XXXIX, Fasc. 1 and 2, 1940.*

The Romance of K'a-mä-gyu-mi-gkyi. A Na-khi Tribal Love Story translated from Na-khi Pictographic Manuscripts, transcribed and annotated by J. F. Rock.

Les chants et les danses d'Ai-lao aux fêtes de Phu-dong (Bac-ninh) par Nguyen-van-Huyen.

Prah Khan de Kompoñ Svay par Henri Mauger.

Une statue de Śiva récemment découverte à Bâkoñ (Cambodge) par G. Coedès. Date 881 A.D.

Recherches archéologiques au Cambodge. Note sur un linteau récemment découvert par R. Dalet.

Note sur la bannière de l'âme. A propos d'une cérémonie bouddhique à la mémoire des victimes du "Phénix" par Tran-van-Giap.

*The Calcutta Review, November 1940, December 1940, January, 1941.*

The North-western question of Indian History (1798-1830) by Bool Chand. Education in Muslim India by S. N. Haidar Rizvi.

Some Observations on the Life and Letters of Mohan Lal Kashmirian by H. R. Gupta.

Sarkhwush: A distinguished Scholar and Poet (1610-1715) by S. K. Rahman.

*Epigraphia Indica, Vol. XXV, Part V, January 1940.*

Santa-Bonimali Plates of Indravarman (Gaṅga Year 87) by R. K. Ghoshai. Purshottamapuri Plates of Ramachandra (Śaka 1232) by V. V. Mirashi:

This is the last record of King Rāmacandra of the Later Yādava dynasty. Two Grants of Prithvīchandra Bhogaśakti by Madho Sarup Vats and D. B. Diskalkar.—"The great historical importance of the present grants lies in the fact that they bring to light a new feudatory dynasty which ruled in the latter part of the seventh and the beginning of the eighth century A.D. over the vast territory comprising the whole of Purī-Koṅkaṇa."

*The Indian Historical Quarterly, Vol. XVI, No. 4, December 1940.*

Interpretation of the Indus Seals by E. J. Thomas.—Author simply notifies the public that Hrozný has deciphered the Indus script.

The Vaiśyas in Mediaeval Bengal by N. K. Dutt.—Author suggests that the Suvarṇavanīkas of Bengal owe their designation to their ancestral home in Suvarṇa, i.e. Suvarṇagrāma at the junction of Brahmaputra and Meghnā.

- The Early Career of Quli Qutb Shāh of Golconda by K. K. Basu.  
 Hyder Ali's Relations with the Marathas, 1769-70, by N. K. Sinha.  
 Was Akbar Literate? by Makhanlal Roychoudhury.—Author's reply is an emphatic 'yes.'  
 The Age and Historicity of the Pṛthvīrāja Rāso by Dasaratha Sarma.  
 Sulṭānah Rāziah by A.B.M. Habibullah.  
 English Missions to Mir Jumla by Jagadish Narayan Sarkar.—Based on English Factory Records.  
 Rudra by Fatah Singh.—Stimulated by a reading of Nansen's *Farthest North* the author has tried to interpret Rudra-myths in the light of aurora borealis!  
 The Talpurs of Sind (an outline of their diplomatic and political vicissitudes) A.D. 1783-1843 by Mohammad Yasin.  
 Materials for the Interpretation of the term 'Gommaṭa' by A. N. Upadhye.

*Journal of the American Oriental Society, Vol. 60, No. 4, Dec. 1940.*

- Egyptian Phonetic Writing, from its Invention to the Close of the Nineteenth Dynasty, by W. F. Edgerton.  
 Sibilants and Emphatics in South Arabic by D. Stehle.

*Journal of the Annamalai University, Vol. X, No. 2, Dec. 1940.*

- Studies in Sanskrit Texts on Temple Architecture with Special Reference to the Tantrasamuccaya by N. V. Malleyya. Detailed and diffuse.  
 The Nayaks of Tanjore by V. Vridhagirisan.  
 Prameyamālā by Vātsyā Varadaguru, edited with Translation and Notes by R. Ramanujachari and K. Srinivasacharya.  
 Avacchedakatāsaraḥ by M.M. Krishna Tāchariar, edited by V. Subrahmanya Sastri.

*The Journal of the Bihar and Orissa Research Society, Vol. XXVI, Part IV, December 1940.*

- The Golconda-court Letters by K. K. Basu.—Twenty-three letters of the times of Shāh Jahān and Aurangzeb are given in English translation.  
 Kurkihar Bronze Inscriptions by A. Banerji-Sastri.—Author identifies Kurkihar with *kin-piu-cha-po-tho* of Yuan Chawng and gives the names of persons and places on Kurkihar bronzes (of the Pāla age).  
 A Letter of Shāh Alam II to George III, in 1772 by Kalikinkar Datta.—Shah Alam complained against Hastings, but to no effect.  
 Mir Jumla and the English in Madras (1655-58) by Jagadish Narayan Sarkar.—Based mainly on English Factory Records.  
 A Tibetan Account of Bengal by S. C. Sarkar.—Author announces publica-

tion of materials from Tibetan sources which, it seems, will revolutionise our notion of the early history Bengal and India.

*Journal of the Gujarat Research Society, Vol. III, No. 1, January 1941.*

Materials for the History of Gujarat of the pre-Valabhi Period by Prahlad C. Divanji.

*Journal of Indian History, Vol. XIX, Part 3, December 1940.*

Utkalas and Udras in Ancient Indian Literature by B. C. Law.

The Fasli Era by Devasahaya Trivedi.

Place-names in the Kuṣāṇa Inscriptions by Baij Nath Puri.

Mahāyāna Buddhism and Pauranic Hinduism: mutual influences by S. Hanumantha Rao.—Author concludes that Mahāyānism was only a sectarian phase of the great Vaiṣṇava movement.

Date of Rākṣasa Kāvya or Kāvyarākṣas by P. K. Code.—Author's object is to take back the later limit for the date of the poem from "before the 17th century" (Keith) to "before A.D. 1000."

*Journal of the Malayan Branch of the Royal Asiatic Society, Vol. XVIII, Part II, August 1940.*

Report on Excavations in Kelantan by M. W. F. Tweedie.

A Sketch of the History of Brunei by H. R. Hughes-Hallett.

A Pre-Islamic Element in the Malay Grave by G. C. Hough.

The Natives of Sarawak by E. Banks.

*The Journal of the Polynesian Society, Vol. 49, No. 4, December 1940.*

The Analysis of Mana by Raymond Firth.—Thorough and exhaustive.

Maori Religion by Johannes Andersen.

Melanesian Modes of Speech by W. G. Ivens.—Continuation of the article will be eagerly awaited by students of philology.

*Journal of the Royal Asiatic Society, Part 1, 1941.*

The Beauty of Indian Sculptures by Dora Gordine.—"Greek sculptors sought to standardize beauty in one cold ideal type, mediæval Christians to impress the mind by suppressing the body, but in Indian sculpture there is an ease, a natural warmth, an abundance of life and love, which does not try to force the mind to any intellectual conclusions."

*Journal of the Royal Asiatic Society of Bengal, Letters, Vol. VI, 1940, No. 1.*

Some Aspects of the Cultural Life of the Khasas of the Cis-Himalayan



Region by D. N. Majumdar.—The Khasas, who have nothing to do with the Khasis of Assam, probably represent the eastern outpost of Indo-Aryan penetration in the Cis-Himalayan region.

*The Journal of the Sind Historical Society, Vol. V, No. 1, Jan. 1941.*

Sind and the Indian Mutiny of 1857 by C. L. Mariwalla.—Superficial.

Two Minor Invasions of Sind by A. B. Advani.—Author briefly discusses the Portuguese Invasion of Thatta and Nadir Shah's Invasion of Sind.

*The Journal of the United Provinces Historical Society, Vol. XIII, Part II, December 1940.*

Presidential Address by Radha Kumud Mookerji, delivered at the session of the Indian History Congress held at Lahore.—Author's chief contention seems to be that the Mahenjo-Daro civilisation was solely and wholly of Indian inspiration.

Tholing Monastery in Western Tibet (A Cultural link between Greater India, Pāla Bengal, and Tibet) by B. R. Chatterji.

The Racial Composition of the Polyandrous People of Jaunsar Bawar in the Dehradun District, United Provinces by D. N. Majumdar.

Prince Akbar under Humayun's Tutelage by S. K. Banerji.

Notice of a Persian Manuscript [of about 1800 A.D.] on the Nawabs of Oudh by Krishna Charan Nigam.

The Origin of Candragupta Maurya by H. C. Seth.—Author contends that Candragupta did not belong to the Nanda family, and that he originally belonged to the Gāndhāra region.

Epigraphic Notes by Jagan Nath.—Author suggests important corrections in the reading of eight well-known inscriptions.

Practice of Detachment in Spiritual Life (*Asparśa-yoga* in its historical development) by Narendra Nath Sen Gupta.

*Journal of the University of Bombay, January 1941, Vol. IX (New Series), Part 4.*

Marquess of Wellesley and the Conquest of India by V. V. Joshi.—“Wellesley's aggressive policy was successful only because he had a powerful army to back him in his decisions.”

Kautilya on Economic Planning by K. S. Srikantan.—“To K. planning was a necessary corrective of the major wastes and frustrations arising from the unregulated impact of one economic activity upon another.”

Hindu Tradition and Islamic Culture in Javanese Civilisation by F. Vreede.—“At the time Islam entered Java, many Javanese welcomed it as a new expression for their fundamental creeds of their own Hindu-

Javanese civilization and of their ancient belief in One Supreme Being ; and the early mosques were built in the same style as the last Hindu temples."

*New Indian Antiquary, Vol. III, Nos. 1-3*

Juxtaposition et Composition dans le R̥gveda by Louis Renou.— Important study on the rise of compounds out of paratactical constructions, and the so-called split-compounds.

Post-Vyāsācārya Commentators (non-polemical) by B. N. Krishnamurti Sarma.—Author discusses the works of Raghūttama Tīrtha (1557-96), Vedeśa Bhikṣu (c. 1570-1620), Viśveśvara Tīrtha (c. 1600), Yadupati Ācārya (c. 1580-1630), and Sudhīndra Tīrtha (1596-1623).

Cakravartin by K. A. Nilakantha Sastri.—Author has made an attempt "to gather the important texts bearing on this interesting conception."

Eighteenth-Century Malayālam Prose Written by Christians by L. V. Ramaswami Aiyar.—To be continued.

Paramārthasāra of Ādiśeṣa by S. S. Suryanarayana Sastri.—Text, translation and notes.

Indo-European *gmskō* or *gmskhō*? by Siddeshwara Varma.—Author prefers the former.

*Science and Culture, Vol. VI, 7, January 1941.*

Harappa by Ramaprasad Chanda.—Brief but excellent résumé.

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If the *śighra* divisor is denoted by D,

$$D = q' + \frac{1}{3} 8^\circ 8' \sin K + 8^\circ 8' \cos K,$$

where  $q' = 60 \times 488 / p' = \text{vyāsa}$  (as defined in v. 15 above),

and  $q' + \frac{1}{3} 8^\circ 8' \sin K = \text{spāṣṭa-vyāsa}$ , according to the commentator.

If the commentator's view is to be accepted, the formula should be written as

$$\text{spāṣṭagati} = m' - \frac{(m' - m) (\text{spāṣṭavyāsa} - \frac{E}{1^\circ})}{D}$$

The form given in the text is, however, to be preferred to that in the commentary for reasons which will appear later.

The form given in the *Laghumānasa* may be compared with the forms given by *Bhāskarācārya* and in the *Sūryya Siddhānta* :

(i) *Bhāskarācārya*, *Spāṣṭādhikāra*, v. 39 —

$$\text{spāṣṭagati} = m' - \frac{(K_2 - K_1) R \cos E}{H}$$

where  $m'$  = daily motion of *Śighrocca*,

$E$  = *śighra-phala*,

$K_1$  and  $K_2$  = *kendras* on two consecutive days,

$H$  = hypotenuse (*kārṇa*) used as divisor in *śighra* operation,

$R$  = radius of concentric.

(ii) *Sūryya-siddhānta*, *Spāṣṭādhikāra*, vv. 50-51 —

$$\text{spāṣṭagati} = m + \frac{(m' - m) (H - R)}{H}$$

which is corrected by the commentator to the form\*

$$m + \frac{(m' - m) (H - R \cos E)}{H}$$

where the symbols have the significance given above.

If *Śighrocca* — Planet = *Kendra*,

taking the positions on two consecutive days,

$$S_1 - P_1 = K_1$$

$$S_2 - P_2 = K_2,$$

\*Vide the excellent exposition given by Burgess for the derivation of the formula.

and therefore

$$(S_2 - S_1) - (P_2 - P_1) = K_2 - K_1,$$

$$\text{or } m' - m = K_2 - K_1.$$

Thus, *Sūryya-siddhānta's* formula, as corrected by the commentator, is

$$\begin{aligned} & m + \frac{(m' - m) (H - R \cos E)}{H} \\ &= m' - \frac{(m' - m) R \cos E}{H} \\ &= m' - \frac{(K_2 - K_1) R \cos E}{H} \end{aligned}$$

which is *Bhāskarācāryya's* formula given above.

Now, according to *Laghumānasa*,

$$\begin{aligned} E &= R \sin E \text{ (minutes)} \\ &= \frac{488 \sin K}{D} \text{ (degrees)} \\ &= \frac{60 \times 488 \sin K}{D} \text{ (minutes)} \end{aligned}$$

where  $D = q' + 18^\circ 8' \sin K + 8^\circ 8' \cos K$ .

But, according to *Sūryya-siddhānta* and *Bhāskarācāryya*,

$$\begin{aligned} R \sin E &= \frac{p' \cdot R \sin K}{\sqrt{R^2 + 2p' R \cos K + p'^2}} \text{ (minutes)} \\ &= \frac{p' \cdot R \sin K}{H} \text{ (minutes)}, \end{aligned}$$

where  $p'$  is the radius of the *Śighra* Epicycle.

Comparing the two forms of  $R \sin E$ ,

$$\frac{60 \times 488}{D} = \frac{p' \times R}{H}$$

$$\text{and therefore } \frac{R}{H} = \frac{60 \times 488}{p' \times D} = \frac{q'}{D}.$$

Therefore, taking *Sūryya-siddhānta's* or *Bhāskarācāryya's* formula,

$$\begin{aligned} Spāṣṭagati &= m' - \frac{(m' - m) R \cos E}{H} \\ &= m' - \frac{(m' - m) q' \cos E}{D} \\ &= m' - \frac{(m' - m) (q' - E/12)}{D} \end{aligned}$$

as given in the Text, provided  $q' \cos E = q' - \frac{E}{12}$

$$\begin{aligned} \text{Now, } q' \cos E &= q' \sqrt{1 - \sin^2 E} \\ &= q' (1 - \frac{1}{2} \sin^2 E) \text{ approximately,} \\ &= q' - \frac{1}{2} q' \sin^2 E. \end{aligned}$$

Since E is taken in degrees, ...

$$E = \frac{R \cdot \sin E}{60} (\text{degrees}) = \frac{488 \sin K}{q'} (\text{degrees});$$

and  $\frac{1}{2} q' \sin^2 E$  will be equal to  $E/12$  or  $\frac{488 \sin K}{12 \times q'}$

if  $6q'^2 \sin^2 E = 488 \sin K$ ,

$$\text{or if } 6 \times \left( \frac{60 \times 488 \sin K}{R} \right)^2 = 488 \sin K$$

$$\text{or if } 488 \sin K = \frac{R \times R}{6 \times 60 \times 60} = \frac{R}{6'3}$$

or if  $3074 \sin K = R (=3438)$ , which is very roughly true when K approaches 90 degrees.

The explanation is not quite perfect, and a better interpretation of the rule in the text will be welcome.

I have not attempted an independent rationale of the rule, but have derived the formula from that given by *Sūryya-siddhānta* and *Bhāskarācāryya*. *Sūryyasiddhānta's* rule has been fully explained from first principles by Burgess, and *Bhāskārācāryya's* rule has been very nicely expounded by Sen Gupta.\*

\*P. C. Sen Gupta, *Infinitesimal Calculus in Indian Mathematics—Its Origin and Development*, pp. 9-11,

For a comparative study of the rules given by different Indian writers, as in *Brāhmasphuṭasiddhānta*, *Soma Siddhānta*, *Śiṣyadhivṛddhida* and *Grahagaṇita*, see the Introduction (pp. xxiii-xxvi) by Sen Gupta to the Translation of *Sūrya-siddhānta* by Burgess.\*

(2) Yallaya gives a variation of the text — he takes शीघ्रफलांशार्कभागेन (*śighraphalāṁśārkabhāgonam*) instead of शीघ्रफलार्कशभागेन (*śighraphalārkaśabhāgonam*), but it makes no difference in the formula or its interpretation, because the *śighraphala* is obtained in the *Laghumānasa* in degrees (*anśas*).

(3) Yallaya's illustration.—To find the *spaṣṭagati* (true motion) of Mars.

|   |                            |
|---|----------------------------|
| <i>Śighra kendra</i>                          | = 6 <sup>s</sup> 16° 0' 0" |
| <i>Bhuja</i>                                  | = 0 <sup>s</sup> 16° 0' 0" |
| <i>Bhujajyā</i>                               | = 2°-13'-55"               |
| <i>Kotijyā</i>                                | = 7°-51'-00"               |
| <i>Manda Cheda</i>                            | = 45°                      |
| <i>Śighra-Vyāsa</i> (mean)                    | = 12°                      |
| <i>Śighra-Vyāsa</i> ( <i>spaṣṭa</i> )         | = 12°-44'                  |
| <i>Śighra-ccheda</i>                          | = 4°-6'-50"                |
| <i>Śighra-phala</i>                           | = 27° 42' 25"              |
| One-twelfth <i>Śighraphala</i>                | = 2° 19'                   |
| <i>Vyāsa</i> (mean) — <i>Śighra-phala</i> /12 | = 9° 41'                   |
| Mars's mean motion                            | = 31' 26"                  |
| <i>Śighrocca's</i> (Sun's) mean motion        | = 59' 8"                   |

Mars's true motion (*spaṣṭa-gati*)

$$= 59' 8'' - \frac{(59' 8'' - 31' 26'') (12^\circ - 2^\circ 19')}{4^\circ 6' 50''}$$

$$= 59' 8'' - 55' 30''$$

$$= 3' 39'' \text{ (direct).}$$

If the *spaṣṭa-vyāsa* be taken instead of the mean *vyāsa*,  
Mars's true motion is given by

$$= 59' 8'' - \frac{(59' 8'' - 31' 26'') (12^\circ - 44' - 2^\circ - 19')}{4^\circ 6' 50''}$$

$$= 59' 8'' - 59' 41''$$

$$= (-) 5' 33'' \text{ (retrograde).}$$

Here ends *Spaṣṭādhikāra*.



### Section III—PRAKĪRṆĀDHĪKĀRA

(Dealing with miscellaneous matters)

In the last Section we have seen that the star-planets (Mercury, Venus, Mars, Jupiter and Saturn) have two Inequalities or Corrections—*Manda* and *Ṣighra*, but that the Sun and the Moon have only one correction, namely, *Manda* correction. It is found however that, although the observed position of the Sun agrees more or less closely with the calculated position (with the *Manda* correction), the agreement between the observed position of the Moon and the calculated position (with the *Manda* correction) is not so close. The reason, according to modern science of Astronomy, is not far to seek. Although both the Sun (apparently) and the Moon (truly) revolve round the Earth (while the star-planets revolve round some celestial body which revolves round the Earth), the variations in the position of the Sun due to the attraction of the Moon and the planets are almost negligible compared to the variations in the position of the Moon due to the attraction of the Sun (even if we neglect the attractions of the star-planets on the Moon).

This variation in the position of the Moon (as corrected by the *Manda* operation) attracted the notice of some of the later Indian astronomers, e.g. *Muñjāla*, *Śrīpati* and *Bhāskarāchārya*; and *Muñjāla* seems to be the first of such astronomers who had observed this variation.

In the next two verses 18-19, *Muñjāla* tries to give an expression for this variation, which may be termed the second Correction or Inequality or Equation of the Moon. He also gives a second correction for the true daily motion of the Moon.

Before proceeding to the subject of the text, it would be well to inquire into the progress made by the ancients in determining the inequalities of the moon. The history of the Lunar Problem before Newton has been thus very admirably summarised in Chapter VIII of Godfray's Lunar Theory :—

“Originally it must have been thought that the moon described a circle with uniform velocity about the earth as centre. But it must have been very soon perceived that it moves with very different velocities at different times.

“Hipparchus (140 B.C.) was the first to imagine that the moon moved with uniform velocity in a circle, of which the earth occupa-

pied not the centre, but a point nearer to one side. On this supposition, the moon would seem to move faster when nearest the earth or in perigee, and slower when in apogee, than at any other points of her orbit, and thus an apparent unequal motion would be produced. Hipparchus had by a similar hypothesis accounted for the irregularities in the apparent motion of the sun. This seems to be the basis of the eccentric theory and also of the epicyclic theory (which, as we have seen, leads to the same result as the eccentric theory).

"The ratio of the distance between the centres of the concentric and the eccentric to their (equal) radius was called excentricity, which, for the moon, Hipparchus fixed at  $\sin 5^{\circ} 1'$  (equal to  $1/12$  nearly). Ptolemy (140 A.D.) also arrived at the same value of the excentricity. The excentricity in the elliptic orbit is about  $1/20$ , and  $1/12$  and  $1/20$  will pretty nearly lead to the same position in the longitude of the moon. But her distance from the earth will not agree; for the ratio of the calculated greatest and least distances

would be  $\frac{1 + \frac{1}{12}}{1 - \frac{1}{12}} = 1\frac{1}{3}$ , while that of the true ones would be

$$\frac{1 + \frac{1}{20}}{1 - \frac{1}{20}} = 1\frac{1}{10}.$$

"It was known to Hipparchus and to the astronomers of his time that the point of the moon's orbit where she seems to move slowest is constantly changing its position among the stars. Hipparchus took account of this further change by supposing the apsidal line to make a complete revolution in about 9 years, or about  $3^{\circ}$  in each revolution.

"The hypothesis of an excentric, whose apse line has a progressive motion, as conceived by Hipparchus, served to calculate with considerable accuracy the circumstances of the eclipses; and observations of eclipses, requiring no instruments, were then the only ones which could be made with sufficient exactness to test the truth or fallacy of the supposition.

"Ptolemy (140 A.D.) having constructed an instrument, by means of which the positions of the moon could be observed in *other* parts of her orbit, found that they sometimes agreed, but were more frequently at variance with the calculated places; the greatest amount of error always taking place at quadrature and vanishing altogether at syzygy. Ptolemy however found that this irregularity did not return in every quadrature — in some quadratures it totally disappeared, and in others amounted to its maximum value  $2^{\circ} 39'$ . By dint of careful comparison of observations, he found that the value of this second inequality in quadrature was always proportional to that of the first

in the same place, and was additive or subtractive as the first was so ; and, thus, when the first inequality in quadrature was at its maximum or  $5^{\circ}1'$ , the second increased it to  $7^{\circ}40'$ , which was the case when the apse line happened to be in syzygy at the same time. But if the apse line was in quadrature at the same time as the moon, the second inequality vanished as well as the first.

"This inequality was subsequently called *Evection*.

"Having computed the places of the moon for different parts of her orbit and compared them with observation made with superior instruments, Tycho Brahe (1580 A.D.) perceived that she was always in advance of her computed place from syzygy to quadrature, and behind it from quadrature to syzygy ; the maximum of the variation taking place in the octants, that is, in the points equally distant from syzygy and quadrature. The moon's velocity therefore, so far as this inequality was concerned, was greatest at new and full moon, and least at the first and third quarters. Tycho fixed the maximum of this inequality at  $40' 30''$ . The value which results from modern observations is  $39' 30''$ . This inequality has been termed *Variation*.

"Tycho Brahe was also the discoverer of the fourth inequality, called the *Annual Equation*. This was connected with the anomalous motion of the sun, and did not, like the previous inequalities, depend on the position of the moon in her orbit. Having calculated the position of the moon corresponding to any given time, he found that the observed place was behind her computed one while the sun moved from perigee to apogee, and behind it in the other half year. Tycho did not state this distinctly, but he made a correction which, though wrong in quantity and applied in an indirect manner, shewed that he had seen the necessity and understood the law of this inequality. He increased by  $(8m. 13s.) \sin$  (sun's anomaly) the time which had served to calculate the moon's place ; thus assuming that the true place, after the interval, would agree with the calculated one. Now as the moon moves through  $4' 30''$  in  $8m. 13s.$ , it is clear that adding  $(8m. 13s.) \sin$  (sun's anomaly) to the time is the same thing as subtracting  $4' 30'' \sin$  (sun's anomaly) from the calculated longitude, which was therefore the correction virtually introduced by Tycho. Modern observations shew the co-efficient to be  $11' 10''$ .

"The fifth inequality in longitude, called *Reduction*, does not arise from any irregularity in the motion of the moon herself in her orbit, but simply because that orbit is not in the same plane as that in which the longitudes are reckoned (viz., the ecliptic), so that even a regular motion in the one would be necessarily irregular when referred to the other. Naturally, this inequality vanishes at  $0^{\circ}$  (or  $360^{\circ}$ ),  $90^{\circ}$ ,  $180^{\circ}$ , and  $270^{\circ}$ .

"As regards the Latitude of the Moon, it was known to the earliest astronomers that the moon's orbit is inclined to the ecliptic, from the non-recurrence of eclipses at every new and full moon; and it was also known, since the eclipses did not always take place in the same parts of the heavens, that the line of nodes has a retrograde motion on the ecliptic.

"Hipparchus fixed the inclination of the moon's orbit to the ecliptic at  $5^{\circ}$ , which value he obtained by observing the greatest distance at which she passes to the north or south of some star known to be or very near the ecliptic, as for instance the bright star Regulus; and by comparing the recorded eclipses from the time of the Chaldean astronomers to his own, he found that the line of nodes goes round the ecliptic in a retrograde direction in about  $18\frac{2}{3}$  years.

"Tycho Brahe further discovered that the inclination of the lunar orbit to the ecliptic was not a constant quantity of  $5^{\circ}$  as Hipparchus had supposed, but that it had a mean value of  $5^{\circ}8'$ , and ranged through  $9'30''$  on each side of this, the least inclination  $4^{\circ}58\frac{1}{2}'$  occurring when the node was in quadrature, and the greatest  $5^{\circ}17\frac{1}{2}'$  being attained when the node was in syzygy.

"He also found that the retrograde motion of the node was not uniform; the mean and the true positions agreed very well when they were in syzygy or quadrature, but they were  $1^{\circ}46'$  apart in the octants.

"Keplar discarded the excentrics and epicycles altogether in explaining planetary motions, and at last made the hypothesis that a planet moves in an ellipse with the Sun in one focus, neither with uniform linear or angular velocity, but in such a manner that the radius vector sweeps over equal areas in equal times. He applied the same hypothesis to the moon, which moves about the earth in an ellipse with the earth in one focus."

The modern theory is primarily based on the law of universal gravitation, as laid down by Newton, namely, "Every particle in the universe attracts every other particle, with a force varying directly as the mass of the attracting particle and inversely as the square of the distance between them."

It is proved in treatises on Dynamics that "two bodies attracting one another with forces varying directly as the mass and inversely as the square of the distance, the orbit of one *relatively* to the other is a conic section, with this other body in a focus, and the radius vector sweeps over equal areas in equal times."

Thus the earth describes an ellipse relatively to the sun, while the sun describes (apparently) an ellipse relatively to the earth. Simi-

larly, the moon describes an ellipse relatively to the earth, "although the departures from elliptic motion, due to the disturbing force of the sun, are, in the case of the moon, much greater than similar disturbances in the case of a planet by other planets."\*

According to this modern theory, the inequality of the moon is given by the following expression, when the co-efficients in circular measure are reduced to degrees, minutes or seconds (by multiplying

such co-efficients by  $\frac{180^\circ}{\pi} = 3437' 44'' \cdot 8 = 206,264'' \cdot 8$  -

$$\begin{aligned} & 377' \sin (nt-\alpha) + 13' \sin 2 (nt-\alpha) + \dots \\ & + 76' \sin \{ 2 (nt-\odot) - (nt-\alpha) \} + \dots \\ & + 40' \sin 2 (nt-\odot) + \dots \\ & - 11' 10'' \sin (\odot-\alpha') + \dots * \end{aligned}$$

where  $nt$  = mean longitude of moon,  $\alpha$  the longitude of the perigee of the moon, and  $\odot$  the longitude of the sun and  $\alpha'$  the longitude of its perigee so that  $\odot-\alpha'$  is the sun's anomaly. The first two terms are parts of the *elliptic inequality* due to the elliptic motion of the moon about the earth in one focus, the term  $76' \sin \{ 2 (nt-\odot) - (nt-\alpha) \}$  is known as the *evection*, the term  $40' \sin 2 (nt-\odot)$  as the *variation*, the term  $11' 10'' \sin (\odot-\alpha')$  as the *annual equation*. The physical interpretation of these terms and their effect on the longitude of the moon are given in treatises on Lunar Theory†, which may be seen.

The expression given above may be written as

$$\begin{aligned} & 301' \sin (nt-\alpha) + 13' \sin 2 (nt-\alpha) + \dots \\ & + [76' \sin (nt-\alpha) + 76' \sin \{ 2 (nt-\odot) - (nt-\alpha) \}] + \dots \\ & + \text{other terms} \\ & = 301' \sin (nt-\alpha) + 13' \sin 2 (nt-\alpha) + \dots \\ & + 76' \times 2 \sin (nt-\odot) \cos (\odot-\alpha) + \text{other terms} \end{aligned}$$

and the term  $152' \sin (nt-\odot) \cos (\odot-\alpha)$  is a combination of the *evection* term and a part of the first term of elliptic inequality.

As in Indian Astronomy anomaly is measured not from the perigee but from the apogee,  $\alpha$  is to be changed into  $180^\circ + \alpha$ , and

\*Godfray, Lunar Theory, p. 106.

†Godfray, Lunar Theory, Ch. VI; Brown, Lunar Theory, Ch. VIII.

the modified form is

$$= -301' \sin (nt - \alpha) + 13' \sin 2 (nt - \alpha) + \dots$$

$$-152' \sin (nt - \odot) \cos (\odot - \alpha) + \dots^*$$

We may now turn to verses 18-19 of *Laghumānasa*, which gives the second correction of the moon —

इन्दूच्चोनाककोटिघ्ना गत्यंशा विभवा विधोः ।

गुणो व्यर्केन्दुदोः कोट्यो रूपपञ्चास्योः क्रमात् ॥ १८ ॥

फले शशाङ्कतद्गत्यो लिप्ताद्ये स्वर्णयोर्वधे ।

ऋणं चन्द्रे धनं भुक्तौ स्वर्णसाम्यवधेऽप्यथा ॥ १९ ॥

*indūconārkaḥkotighnā gatyamśā vibhavā vidhoh |*

*guṇo vyarkendudohkotyo rūpapañcāptayoh kramāt ||18||*

*phale śaśāṅka-tadgatyorliptādye svarṇayorvadhē |*

*ṛṇam candre dhanam bhuktau svarṇasāmyavadhē 'nyathā ||19||*

18-19. The (mean) daily motion of the moon diminished by 11 degrees, multiplied by the *Koti* ("cosine") of the longitude of the sun diminished by that of the moon's apogee is the multiplier of the *Bhuja* (*Doh*—"sine") and the *Koti* ("cosine") of the longitude of the moon diminished by that the sun, divided respectively by 1 and 5. The results taken as minutes are to be applied negatively and positively to the moon and to her daily motion (respectively) if the quantities (*Koti* and *Bhuja*, or *Koti* and *Koti*) multiplied together are of opposite signs, and in the reverse order if they are of the same sign.†

Notes.—(1) The formulas are :—

(a) Correction for the moon's longitude (in minutes)

$$= \mp (13^\circ 10' 35'' - 11^\circ) \times 8' 8'' \cos (\odot - \alpha) \times 8' 8'' \sin (nt - \odot) / 1$$

$$= \mp 143' 58'' \cos (\odot - \alpha) \sin (nt - \odot),$$

where  $13^\circ 10' 35''$  is the mean daily motion of the Moon, and  $\odot$ ,  $\alpha$  and  $nt$  are the longitudes of the Sun, *Candrocca* (Moon's Apogee) and the Moon ; the negative or the positive sign is to be taken accord-

\*Sen Gupta, *Khaṇḍakhādya*, App. I, pp. 160-162.

†Sen Gupta, *Khaṇḍakhādya*, Appendix I, p. 162.

ing as  $\cos (\odot - \alpha)$  and  $\sin (nt - \odot)$  are of opposite signs or of the same sign.

(b) Correction for the moon's daily motion (in minutes)

$= \pm (13^{\circ} 10' 35'' - 11^{\circ}) \times 8^{\circ} 8' \cos (\odot - \alpha) \times 8^{\circ} 8' \cos (nt - \odot) / 5$   
 where the positive or the negative sign is to be taken according as  $\cos (\odot - \alpha)$  and  $\cos (nt - \odot)$  are of opposite signs or of the same sign.

(2). It is difficult to say how these formulas were derived. Possibly, the variation of the Moon's longitude from the longitude as determined by the first correction was found by observation to vary as (i) Moon's daily motion less 11 degrees, taken as minutes, (ii) "cosine" of  $(\odot - \alpha)$ , and (iii) "sine" of  $(nt - \odot)$ , and that of the Moon's motion to vary as (i) Moon's daily motion less 11 degrees, taken as minutes, (ii) "cosine" of  $(\odot - \alpha)$ , and (ii) "cosine" of  $(nt - \odot)$ ; and then the constant divisors 1 and 5 were obtained by further observations.

(3). If  $l + l' + l''$  is the Moon's true longitude on a particular day, where  $l$  is the mean longitude,  $l'$  the first correction, and  $l''$  the second correction,  $\frac{d}{dt} (l + l' + l'')$  will give the Moon's daily motion, and  $\frac{dl''}{dt}$  will be the correction for such motion corresponding to the second correction  $l''$  for the Moon's position. This explains partially the factor  $\cos (nt - \odot)$  in the expression for the correction of the moon's daily motion corresponding to the factor  $\sin (nt - \odot)$  in the expression for the correction of the moon's longitude. The signs are explained by the fact that "sine" of *Laghumānasa* is essentially —"sine" according to modern convention.

(4) Turning now to the form of the second correction for the moon's longitude

$$143' 58'' \cos (\odot - \alpha) \sin (nt - \odot)$$

we find that it very nearly agrees with the term

$$152' \cos (\odot - \alpha) \sin (nt - \odot)$$

obtained above by combining the principal evection term with a portion of the principal term of elliptic inequality according to modern theory. The difference is only in the factor  $143' 58''$ , which is short of the correct factor  $152'$  by about  $8'$ , due perhaps to errors of observation. On account of the two multiplying factors  $\cos (\odot - \alpha)$  and  $\sin (nt - \odot)$ , which are both less than 1, the ultimate error in the numerical value of this term will be generally much less than  $8'$ .

Ptolemy (A.D. 140) was the first, as we have seen above, to discover the second inequality of the moon, called *Evection*. Ptolemy's

hypothesis and construction to explain this inequality are given in Articles 121 and 122 of Godfray's *Lunar Theory*. In the general case his construction does not lead to the elegant form of the evection term as we now know it, nor does it lead to the nice form in which it is given by later Indian astronomers from the time of *Muñjāla* (854 Śāka = 932 A.D.)\* "His corrections about this inequality are true when at the quadrature the moon's apse line passes through the sun or is at right angles to the line joining the earth and the sun."†

"Thus, in form, *Muñjāla*'s expression for the second inequality of the moon is most perfect, it is far superior to Ptolemy's, it is above all praise. It is from this expression for the inequality that *Muñjāla* is entitled to have an abiding place in the history of astronomy."‡

(5). There is no evidence in Indian astronomy or elsewhere of the transmission of the knowledge of Ptolemy's discovery of the second inequality. For, if there was such transmission, we would get this second inequality in *Āryabhaṭīyam* (where we find for the first time a mention of the signs of the zodiac and of the dates of the week, which we do not come across in any earlier indigenous writings and which might have been borrowed from Egyptian or Chaldean Astronomy), or in the *Pañca-siddhāntikā*, or in *Brāhma-sphuṭa-siddhānta*, or in modern *Sūryya-siddhānta*. The Indian astronomers from the time of *Āryabhaṭa* have generally followed a beaten path in their method of presentation. It is therefore all the more surprising that *Muñjāla* should give, against all traditions, a *second inequality* of the moon, which shows an amount of originality in observation, calculation and presentation, not generally found in the astronomers of his time. If Ptolemy was the first to discover it, *Muñjāla* was the first to re-discover it after a lapse of 792 years. History records many such instances of discoveries forgotten and lost and of re-discoveries made later; for example, D' Arzachal, an Arabian astronomer, who observed in Spain about the year 1080 A.D., seems to have discovered the *unequal* motion of the apsides, but his discovery must have been lost sight of, for Horrocks, about 1640 A.D., re-discovered it 'in consequence of his attentive observations of the lunar diameter'\*\*\*; again, it appears that Mohammed-Aboul-Wefa-al-Bouzdjani, an Arabian astronomer of the tenth century, who resided at Cairo, and observed at Bagdad in 975, discovered a *third inequality* of the moon, in addition to the two

\*Sen Gupta, *Khaṇḍakhādya*, Appendix I, p. 161.

†Godfray, *Lunar Theory*, pp. 108-110.

‡Sen Gupta, *Khaṇḍakhādya*, App. I, p. 163.

\*\*\*Godfray, *Lunar Theory*, p. 113.



expounded by Ptolemy, the equation of the centre and the evection. This third inequality, the *variation*, is supposed to have been re-discovered by Tycho Brahe (1580 A.D.), six centuries later.\*

(6) The lead, which was thus given by *Muñjāla* in this matter, was followed by later Indian astronomers, *Śrīpati* (1028 A.D.), *Bhāskarācāryya* (1152 A.D.), and *Chandraśekhara* of Orissa (19th century A.D.). For a comparative study of the methods of these writers and of the results achieved by them, I would refer the readers to the excellent exposition given by Sen Gupta in his *Khaṇḍakhādya*, Appendix I, pp. 163—171. It will be observed that *Bhāskarācāryya* was the first in India to discover the *third inequality* of the moon, called *Variation*; it was first discovered, as stated above, by Aboul-Wefa in 976 A.D., which was quite forgotten when Tycho Brahe re-discovered it in 1580 A.D.; hence Bhaskara must be considered to have re-discovered it in 1152 A.D., four centuries before Tycho Brahe. *Chandraśekhara's* merit lies in the re-discovery of the *Annual Equation* (the *fourth inequality* of the moon), and in finding the correction to the constant of *variation*.

To determine the correction for *deśantara*, due to the longitude of a place east or west of the standard meridian —

अवन्तीसमयाम्योदग्रेखापूर्वापराध्वना ।

ग्रहगत्यंशषष्ठ्यंशो हतो लिप्तासृष्ट्यं धनम् ॥ २० ॥

*avantīsamayāmyodagrekhā-pūrvāparādhvanā |*

*grahagatyamśaṣṣṭyamśo hato liptāsṛṣṭyam dhanam ||20||*

20. Multiply the 60th part of the (daily) motion of the Planet in degrees by the distance (measured in *yojanas*) east or west of the (terrestrial) meridian of *Avantī*; the product is the correction in *liptās*, positive or negative, (to be applied to the position of the Planet for difference in terrestrial longitude).

Notes.—(1) The meridian of *Avantī* was taken by the Indian astronomers as the prime meridian or the meridian of reference, as the meridian of Greenwich of modern times. The meridian of *Avantī* passed (*Sūr. Sid.*, I, 62) through *Laṅkā* on the Equator (Latitude Nil; Longitude Nil), *Rohitaka* (*Rohtuk* (?)) mentioned by Thornton in the Gazetteer of India as a little to the north-west of Delhi in

\*Godfray, *Lunar Theory*, p. 114, footnote.

the midst of the ancient *Kurukṣetra*, its longitude being  $76^{\circ} 38'$  or  $51'$  to the east of *Ujjayinī*). *Avantī* is *Ujjayinī*. *Bhāskara* describes the prime meridian as follows : "the line which, passing above *Laṅkā* and *Ujjayinī*, and touching the region of the *Kurukṣetra*, etc., goes through *Meru*—that line is by the wise regarded as the central meridian (*madhyarekhā*) of the earth" (*Sid. Śiromaṇi, Gaṇit. vii, 2*)\*. According to *Prasastidhara*, one of the commentators of *Laghumānasa*, the prime meridian passes through *Laṅkā*, *Kumārikā*, *Kāñcī*, *Pātalī*, *Siddhapurī* *Vatsagulma* (in Berar), *Ujjayinī*, *Lohita* (*Rohitaka* ?), *Kuru*.

In the adjoining Figure VIII representing the Earth, let E L K Q

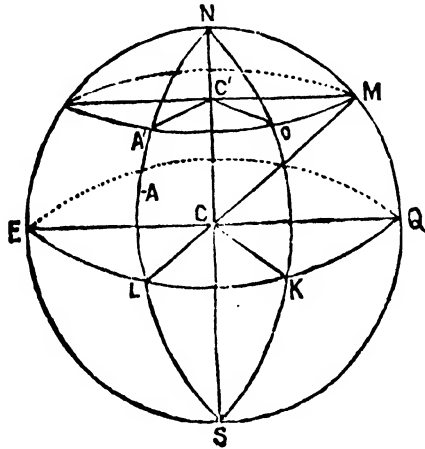


Diagram VIII

be the terrestrial Equator ; the small circle  $A'OM$  be a parallel of latitude ;  $N$  and  $S$  the north and south Poles ;  $NA'ALS$  be the standard or prime meridian passing through *Laṅkā* ( $L$ ) on the Equator and *Avantī* ( $A$ ) cutting the small circle  $A'OM$  at  $A'$  ;  $NOKS$  the meridian circle passing through the place ( $O$ ) of the observer and cutting the Equator at  $K$  ;  $C$  the centre of the Earth, of the Equator and of the meridian circles ; and  $C'$  the centre of the small circle  $A'OM$ .

Then the arc  $LK$  intercepted on the Equator by the two meridian circles  $NA'ALS$  and  $NOKS$  represents the difference of longitudes between *Avantī* ( $A$ ) and the observer ( $O$ ); the  $\angle LCK$  = the  $\angle A'CO$  ; but the length of the corresponding arc  $A'O$  being in a small circle is less than the linear measure of the arc  $LK$  on the Equator, a great circle ; but.

\*Burgess, Translation of *Sūryya-siddhānta*, I, 60-67.

$$\frac{\text{arc } A'O \text{ (in } yojanas)}{\text{O}^{\text{ce}} \text{ of small circle } A'OM} = \frac{\text{arc } LK \text{ (in } yojanas)}{\text{O}^{\text{ce}} \text{ of great circle } ELKQ, \text{ the Equator}} \quad \text{(in } yojanas)$$

$$\begin{aligned} \text{Also, } \frac{\text{O}^{\text{ce}} \text{ of circle } A'OM}{\text{O}^{\text{ce}} \text{ of circle } ELKQ} &= \frac{C'M}{CQ} = \frac{C'M}{CM} = \sin \angle MCC' \\ &= \cos \angle MCQ \\ &= \cos (\text{latitude}). \end{aligned}$$

If, therefore,  $\text{O}^{\text{ce}} ELKQ$  (Equator) be 3,600 *yojanas*, that of  $A'OM = 3,600 \times \cos (\text{latitude})$  *yojanas*.

The *yojanas* of a complete circle, small or great, (i.e. Equator or a parallel of latitude), on account of the diurnal motion of the Earth, complete a revolution in a day; the *yojanas* on *such* circle measuring the interval between the two meridians (standard and observer's) therefore measure the time (i.e. portion of a day) between them, i.e. between a specified instant (say, midnight) for the two meridians. As the daily motion of a planet is the difference of longitudes of a planet occurring during one complete day, the daily motion multiplied by this time gives the difference in celestial longitude of the planet due to the observer's position being different from the standard meridian.

(2) According to the rules previously stated the mean places of the planets can be ascertained for a given instant of time (mid-day or mid-night) upon the prime meridian. This verse teaches us how to find them for a similar instant of time upon any other meridian, or, how to correct for difference of terrestrial longitude the mean places already found (See Burgess, *Sūr. Sid.*, I, 61). The proportion is :

The amount of motion of each planet between (say) midnight of the prime meridian and of the other meridian

: The whole daily motion of the planet

= The part of the circumference of the earth at the latitude of the point of observation intercepted between that point and the prime meridian

: The circumference of the parallel of latitude of the point of observation

The distance in longitude (*deśāntara*, difference of region) from the observer's meridian to the prime meridian is measured, neither in time nor in arc, but in *yojanas*. How it is ascertained is taught in *Sūr. Sid.*, I, 63-65.

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### OBITUARY NOTICE

The Editors of "Indian Culture" and the Secretary, The Indian Research Institute, mourn with Dr. B. C. Law, a Vice-President and Patron of the Indian Research Institute, and formerly an editor and now Chairman of the Advisory Committee of this Journal, the death, in the flower of youth, of Master Gopal Chunder Law, his only son.

May his soul rest in eternal peace and may the Almighty give Dr. Law strength and fortitude to bear this severe trial !

Words cannot tell, nor tears express, the sorrow we feel. Dreadfully true are indeed the words of the Vedic R̥ṣi :—

न देवानामति व्रतं शतात्मा च न जीवति ।

R̥gveda X. 33. 9.



## THE MEANING OF *SUYA* AMONG THE JAINAS

By AMULYACHANDRA SEN

As enunciated by Umāsvāti, the well-known authority on Jaina dogmatics, the way to Mokṣa consists in right belief, right knowledge and right conduct,<sup>1</sup> which shows how important the acquisition of knowledge was to the Jainas. As is usual with them in all matters that engaged their attention, the Jainas analysed *nāṇa* 'knowledge' into all its possible varieties and sub-divisions, viz., first into two broad classes of *paccakkha* and *parokkha*,<sup>2</sup> and then the first into *ohi*, *manapajjava* and *kevala*, and the second into *mai* and *suya*.<sup>3</sup> *Paccakkha* in its three varieties relates to occult or superhuman knowledge which we shall leave aside here as they are irrelevant for our present purposes.<sup>4</sup>

Of *parokkha*, the two varieties are thus described :—

(i) *Mai (mati)* — it is the general name of all knowledge acquired by the sense-organs with the co-operation of the mind.<sup>5</sup> While Umāsvāti and other later authors use the term *mati*, the Canon knows this form of knowledge by the name of *ābhinibohiya*. Apparently on the basis of this, Umāsvāti mentions *abhinibodha* as one of the synonyms of *mati*,<sup>6</sup> and *Nandī* p. 140 A, in a passage just to be quoted, uses both the terms *ābhinibohiya* and *mai* synonymously. *Mai* knowledge has been sub-divided into many varieties which however are not of much interest to us in our present enquiry. But one small point has to be noticed in this connection, viz. the relation between *Mai* and *Suya* (the other variety of *parokkha* knowledge). According to *Nandī* p. 140 A, *Mai* and *Suya* are inseparable and always go hand in hand—*jattha ābhinibohiya nāṇaṃ tattha suya-nāṇaṃ, jattha suya-nāṇaṃ tattha ābhinibohiya-nāṇaṃ, do 'vi eyāṇaṃ aṇṇa-m-aṇṇa-m-aṇṇagayāṇa*. But in spite of the intimate relation of concomitance thus established between *Mai* and *Suya*, *Nandī*, *loc. cit.*, makes a difference between

1. Tattvārthādhigama-sūtra, I. i.

2. *Nandī*, p. 71 B; *Tat-s.* I. 11-12. 3. *Nandī*, p. 65 A; *Tat-s.* I. 9.

4. The Jainas, too, when speaking of the study of the sacred scriptures, say "The (other) four kinds of knowledge are to be set aside," *Anuyogodvāra*, i.

5. *Nandī*, p. 143 ff., *Tat-s.* I. 13-19; Schubring, *Die Lehre der Jainas*, p. 102.

6. *Tat-s.* I. 13.



the two, on the authority of ancient teachers, in these words—*mai-puv-vaṃ jeṇa suyam, na mai suya-puvviyā*, 'Suya presupposes (or is preceded by) *mai* but *mai* does not presuppose (or is not preceded by) *Suya*.' *Umāsvāti* also means the same thing when he describes *śruta* as *matī-pūrvam* (Tat-s. I. 20). The difference thus made between these two varieties of indirect (*parokkha*) knowledge seems to be meant to emphasise the fact that *Suya* or scriptural knowledge is not possible to one whose sense-organs and mind are not in proper working order.

(ii) *Suya* is divided into fourteen kinds which really comprise of seven kinds, each kind being again divided into its positive and negative aspect. *Nandī* p. 187 A ff. goes elaborately into analysing these fourteen divisions as well as their numerous sub-divisions. The mode of treatment adopted in these analyses is the stand-point of the schoolman who looks at a thing from various angles and aspects. The divisions are thus often overlapping. There is much of interest here to a psychologist engaged in studying the processes of acquisition of indirect knowledge, but for our present purposes we may leave them aside, except such items among them which we shall presently notice. One fact however becomes plain from all these scholastic divisions, viz. that acquisition of knowledge indirectly (*parokkha*) came to mean to the Jainas acquisition of second-hand knowledge, that second-hand knowledge was held to be identical with knowledge reduced to writing, which soon came to mean the sacred scriptures. To sum it up briefly, to the Jainas *Suya* is nothing but knowledge of their canonical texts, just as *śruti* among the Brahmanical community denoted the knowledge of the Vedic lore. In this sense therefore *Suya* is synonymous with the *āgama*, i.e. the scriptures handed down from antiquity, and we can well understand the eulogisation of members of the order, therefore, who are *bahu-ssuya* and *bahu-āgama*, 'well-versed in the knowledge of the sacred scriptures.'

We shall now notice some interesting information yielded by the different ways in which *suya* has been sub-divided. In the third of the seven kinds of division, *Suya* is classed into *samma* (true scriptural knowledge, viz. that of the twelve *aṅga* texts) and *miccha*; false scriptures. Under *miccha* come the teachings of all other non-Jaina systems and sects, such as Mahābhārata, Rāmāyaṇa, Bhimāsurok-

7. *Vavahāra* 1. 34. It is interesting to note in this connection that in Girnar Rock Edict XII, Aśoka uses the words *bahu-śruta* and *āgama* in the same sentence—*evam hi Devānaṃpiyasa ichā kinti sava-pāsaṇḍā bahu-śrutā ca asu, kalāṇ-āgamā ca asu*, Hultzsch, *Inscrip. of Aśoka*, new ed., 1925, p. 21.

kha (?), Kodillaya (the Arthaśāstra of Kauṭilya), Sagadabhaddia (?), Ghoḍagamuha (probably the *Kāmaśāstras* are meant, one of this school being called Ghoṭakamukha), Kappāsiya (Kāśyapiya ?),<sup>8</sup> Nāgasuhuma (?), Kaṇagasattarī (?), Vaisesia (Vaiśeṣika), Buddha-vayaṇa, Terasia (a schismatic school among the Jains),<sup>9</sup> Kāvilia<sup>10</sup> (followers of Kapila), Logāyaya<sup>11</sup> (the Lokāyatas), Satṭhi-tanta (Sāṃkhya), Mādharā (?), Purāṇa, Vāgarāṇa (Vyākaraṇa), Bhāgavaya (the Bhāgavatas), Pāyanjali (Yoga), Pussadevaya (?), Lcha, gaṇiya...saṇa-rua,<sup>12</sup> nādaga (Nāṭyaśāstra), and the four Vedas along with their *aṅgas* and *upāṅgas*. This list throws light on contemporary conditions, although the sects, whose identification is doubtful still remain obscure.<sup>13</sup>

Another of the seven divisions of *Suya*, the sixth, is also deserving of attention. In this, *Suya* has been divided into *gamiya* (regarded as being the same as *ditṭhivāya*) and *agamiya* (regarded as being the same as *Kāliya-sutta*), or, both of these jointly have been classified into *aṅga-pavitṭha* and *aṅga-bāhira*.<sup>14</sup> *Aṅga-pavitṭha*, whereby are meant the twelve *aṅga*-texts, viz. Āyāra, Sūyagaḍa, etc., needs no further explanation, but *aṅga-bāhira* has to be gone into fully.

*Aṅga-bāhira* has been divided into two classes, *Āvassaya* and *Āvassaya-vairitta*, thus—

(i) *Āvassaya*<sup>15</sup>—it has six forms, viz.,

(a) *Sāmāiya*—this is a short formula<sup>16</sup> to be repeated many

8. Followers of Purāṇa Kassapa, see Barua, *Hist. of Pre-Buddh. Ind. Phil.*, 278.

9. See Sen, Amulyachandra, *Schools and Sects in Jaina Literature*, pp. 7, 44.

10. By 'doctrine of Kapila,' Abhayadeva, the commentator, understands the doctrine of Sāṃkhya, see *ibid.*, p. 14.

11. or the Nāstikas.

12. These are the well-known "seventy-two (mundane) arts (kalāo)" of Jaina literature, beginning with writing, reckoning etc. and ending with the knowledge of birds' cries.

13. See Winternitz, *Hist. of Ind. Lit.*, II, p. 473.

14. See Schubring, *Lehre*, p. 55 ff. for a full discussion on this scholastic mode of classifying the Canon.

15. Leumann, *Uebersicht über die Āvaśyaka-Literatur*, Hamburg 1935, has reviewed the entire complex of the Āvaśyaka literature; see also Schubring, *Lehre*, p. 170. The formulas named below are found in several publications of recent date by the Jains dealing with their religious formulas, such as Pañca-Pratikramaṇa-Sūtra (PPS.), Jaina Atmānanda-sabhā, Bhavanagar.

16. See Leumann, *Uebersicht*, p. 6<sup>a</sup>; PPS., p. 22.

times during the day, expressing the vow of avoiding sin in thought, word or deed, committing it oneself, or making another commit it or approving of another's committing it.

(b) *Cauvisa-tthava*—a hymn of prayer in seven stanzas to the twenty-four Tīrthaṃkaras; this *stava* is also commonly known as “*ujjoyagara*.”<sup>17</sup>

(c) *Vandana*—respectful salutation of one's superiors by touching his feet with one's hands and begging for forgiveness of faults committed during the day or night.<sup>18</sup>

(d) *Paḍikkamaṇa*—formulas of confession of sin.<sup>19</sup>

(e) *Kāussassa*—a motionless standing posture, with the arms hanging down, in an attitude of devotion, accompanied by suspension of breath, coughing etc., for the duration of time required in one inhalation of breath.<sup>20</sup>

(f) *Paccakkhāṇa*—formulas for the renunciation of particular kinds of food and drink.<sup>21</sup>

(ii) *Āvassaya-vairitta*—is of two kinds, viz.,

(a) *Kāliya*—it is the name of certain texts, such as *Uttarajjhayaṇa*, etc., and

(b) *Ukkāliya*—it is the name of certain other texts, such as *Dasaveyāliya* etc.

The sacred texts are divided into these two classes according as they are to be studied during or outside of the prescribed periods of study for Jaina ascetics,<sup>22</sup> viz. the first and last of the four *pauruṣīs* into which day and night are divided, as Malayagiri, quoting the Cuṇṇi, says “*yat divasa-niṣā-prathama-pāścima-pauruṣī-dvaya eva paṭhyate tat kālikam . . . . .yat punaḥ kāla-velā-varjjaṃ paṭhyate tad ukkālikam*.”<sup>23</sup> There seems to be no logical reason, thinks Schubring,<sup>24</sup> for dividing the sacred texts into these categories, for, *Dasaveyāliya* (an *ukkāliya* text) for instance, is no less important than *Uttarajjhayaṇa*, a *kāliya* text; it was none-the-less a well-recognised mode of classifying the scriptures.

It will be evident from the treatment of *Sūya* in *Nandī* as quoted above, that *Sūya* almost exclusively meant the sacred scriptures, the

17. Leumann, *Uebersicht*, p. 6 b; PPS., p. 17.

18. Leumann, *Uebersicht*, p. 7 b; PPS., p. 72.

19. PPS., pp. 10, 62.

20. See Schubring, *Lehre*, p. 178.

21. PPS., p. 237 ff.

22. *Uttarajjh.* XXVI.

23. *Nandivṛtti*, p. 204 A; Leumann, *Uebersicht*, p. 21 b, n. 1-2.

24. *Lehre*, p. 56.

study and knowledge of which were one of the most important duties of a Jaina ascetic. But in course of time when the church fell into evil days and there were schisms and disorder among the community, there arose a class of ascetics who disregarded authority and decided their own ways, even in respect of the study of the scriptures; they were self-initiated and self-constituted members of the church, having no accredited teacher and belonging to no *gaṇa*, *sāhā* or *kula*. The fierce recrimination used against these new-fangled members by the orthodox community, as also the disorder in the church owing to the rivalry between the two opposing groups, have been described at length by the *Āṅgacūliya*,<sup>25</sup> which obviously portrayed contemporary conditions in the church. As a result of these disorders, it came to be strictly insisted upon that the handing down of the sacred scriptures was to be effected in a prescribed manner, viz. that only a properly ordained teacher was entitled to instruct on scriptural matters, and that this instruction can be received by none except those who have been properly and formally initiated into the Order.<sup>26</sup> Thus was to be maintained the unbroken and unimpaired character of *paramparā* in the handing down of the scriptures, which is to be traced back to Mahāvīra himself. Just as Mahāvīra initiated and instructed Indabhūi and others, just as Suhamma initiated and instructed Jambu, so in like manner must all monks and nuns receive proper initiation from the hands of a properly ordained *āyariya* before they can take up the study of the scriptures, and, at the time of the initiation the new ascetic must know with exactness to what *gaṇa*, *kula* or *sāhā*<sup>27</sup> he belongs and through what line of spiritual succession his teacher claims direct descent from Suhamma himself. The factor of *guru-paramparā* was therefore of supreme and essential necessity and thus *Suya* in its exact sense means to the Jainas the knowledge of the scriptures as handed down through a properly qualified teacher.

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25. MS. orient. fol. no. 2565 in Berlin State Library, p. 3 B ff.

26. *Āṅgacūliya*, p. 3 A f.

27. See Schubring, *Lehre*, pp. 34, 160, 162 for the explanation of these technical terms in the organisation of the Order.



## REFERENCES TO INDIAN HISTORICAL AND QUASI-HISTORICAL RECORDS IN HIUEN-TSANG.

By U. N. GHOSHAL

In the course of his narrative of his great work of travels in India, Hiuen Tsang from time to time records legends of the foundation of cities such as Campā (Watters, *On Yuan Chwang*, II, p. 181), Pāṭaliputra (Ibid, II, p. 87), Kanyākubja (Ibid, I, p. 341) and the like. These stories have nothing Buddhistic about them and are very like similar tales known to epic and Purāṇic traditions. The stories refer themselves as a rule to a very distant past, when men lived, so we are told, for countless years. The story of Pāṭaliputra connects itself, with the primitive belief in Dryads or tree-spirits, that of Campā refers to a primitive goddess descended from heaven, while the story of Kanyākubja referring to the curse of "the Great Tree-Ṛṣi" (itself a significant reminder of the amalgam of primitive and Brāhmanical beliefs) has almost its exact parallel in a Brāhmanical legend attributing the origin of the city to the curse of the Ṛṣi Vāyu (Watters, *loc. cit.*). Equally Brahmanical is the story of the foundation of Puruṣapura in Paramārtha's *Life of Vasubandhu*, where it is said that the city was so called because it was there that the God Viṣṇu showed himself as a hero (Puruṣa) by killing a demon. (See Takakusu's translation of the Chinese version of this work in *T'oung Pao*, 1904). It follows from the above that the traditions of city-foundations recorded by Hiuen Tsang have a pre-Buddhistic, and in some cases a pre-Aryan, origin.

Hiuen Tsang in the course of his work frequently refers to what may be called topographical traditions relating to the countless sites that he visited. He thus mentions numberless *stūpas* with or without relics, extending from Kapiśā and the Sindhu country in the west to Puṇḍravardhana and Samatāṭa in the east and from Kashmir and Nepal in the north to the Cola country in the south, which are all attributed to Asoka. Sundry monasteries as well as images and other sacred objects in the localities that he visited are likewise attributed to Asoka and other founders (cf. his notices of the sandal-wood image of Buddha at Kauśāmbī made for king Udayana, I, p. 368; of the sites of Prasenajit's Chapel and Mahāprajāpati's nunnery at Śrāvastī, I, p. 377; of the Buddha image on the Jetavana site made for king Prasenajit, I, p. 384). Often the pilgrim mentions the miracles

attending the sacred objects, the modes of their worship and so forth, which bring his account very close to that of modern *māhātmyas* of sacred places. In some cases the traditions are of a purely secular character. (Cf. the pilgrim's notices of Bimbisāra's road and causeway at Rājagṛha, I, pp. 146 ff. ; of the sites of Prasenajit's palace and Sudatta's house at Śrāvastī, I, p. 376). One instance is interesting as pointing to a tradition of local origin quite unknown to the general body of Buddhist traditions. There the pilgrim mentions (I, p. 236) a tope erected by Uttaraseṇa, king of Udyāna to enclose his share of Buddha's relics,—a story which is altogether unknown to the Buddhist texts describing Buddha's Parinirvāṇa (cf. Watters' remarks, *loc. cit.*). Another instance cited by Hiuen Tsang is very interesting as illustrating a conflict of traditions. Speaking of five ruined topes in the vicinity of Pāṭaliputra, the pilgrim observes (II, p. 96) that according to "Indian records" these were built by Aśoka to enshrine the five pints of relics left over after building eighty-four thousand topes, while according to the "unauthorised statements" of "disciples of little faith," they represented "the five treasures of King Nanda's seven precious substances." As Watters points out in this connection, these five topes are unknown to Fa Hien and they do not agree with the legend of Aśoka's building eighty-four thousand topes told by Hiuen Tsang himself. The latter version, we may point out, receives some support from references in an old Tamil historical poem and the Sinhalese *Mahāvamsa* which mention Nanda's accumulated treasures being concealed in the bed of the Ganges (for references see Raychaudhuri, *Political History of Ancient India*, 4th ed., pp. 190-191). Here, then, we have a concrete instance of the way in which the Buddhists were increasing the stock of Aśokan traditions at the expense of earlier ones.

The traditions recorded by the pilgrim about Kaniṣka and Aśoka though likewise centering around specific localities, bear a more general character because of the importance of their subjects. Speaking of Kaniṣka's *stūpa* at Puruṣapura (I, pp. 203-204), the pilgrim tells us how Buddha himself predicted the building of the *stūpa* by Kaniṣka four hundred years after his decease, how the unbelieving "sovereign of all Jambudvīpa" was converted to Buddhism, how trusting to his own merits, he built the great *stūpa*, and how his pride was humbled in the long run. The pilgrim also mentions other traditions and legends about Kaniṣka such as his reception of the princely hostages who were accommodated in three monasteries in India, Gāndhāra and Kapiśā (I, p. 124), his conversion of the dragon king in the vicinity of Kapiśā (I, pp. 127-128) and his summoning of the Council (I, pp. 270-271). How untrustworthy the chronology of his

Indian sources had become already in Hiuen Tsang's time may be demonstrated from the fact that in another context (I, p. 222), Kaniṣka is said to have lived five hundred years after Buddha's decease.

Far more copious than the tales connected with Kaniṣka are those related by the pilgrim with regard to the great king Aśoka. Speaking of the Kunāla *stūpa* at Taxila, Hiuen Tsang tells us (I, 246) how Aśoka at the instance of his wicked queen Tīṣyarakṣitā sent his gentle and pious son to govern Takṣaśilā, how the prince was blinded there through the wicked machinations of the queen, how the blind prince and his wife returned to Pāṭaliputra and how his eyesight was at last restored through the intervention of a Buddhist saint. Again, in course of his description of Pāṭaliputra, the pilgrim tells (II, p. 88) the whole story of Aśoka's celebrated Hell-prison. In the same context, he gives in full (II, p. 91) the story of the building of eighty-four thousand relic *stūpas* by Aśoka after his conversion at the hands of the sage Upagupta (Among the few references to Aśokan inscriptions in Hiuen Tsang may be mentioned his description of a stone pillar within the precincts of Pāṭaliputra, II, p. 93. This bore "a much injured" inscription of which the sum and substance was that Aśoka had thrice given Jambudvīpa as a religious offering to the Buddhist order and thrice redeemed it with his own precious substances. The expression seems to suggest that the purport of the inscription was conveyed to the pilgrim by unscrupulous *bhikṣus* who took advantage of their visitor's ignorance of its script).

Brief and imperfect as are the Aśokan traditions mentioned by Hiuen Tsang, we may safely trace them to the ancient famous work known as *Aśokāvadāna* which formed one of the sources of the *Divyāvadāna* and which now exists in two distinct Chinese versions that may be rendered as *Aśokarājāvadāna* and *Aśokarājasūtra* (On this important work and its versions see J. Przyluski, *Le Légende de l'Empereur Asoka, Avant-propos*, xi-xiii. According to this author the original *Aśokāvadāna* was probably composed by a monk of Mathurā a century before Kaniṣka's time). Indeed the account of Aśoka's exploits given by the pilgrim agree with but slight differences with those of the *Divyāvadāna* and the two Chinese versions above-mentioned (See Watters' comparison of these accounts, *loc. cit.*). Hiuen Tsang's observations may be taken to indicate that the Aśokan traditions had already become much confused in his time. Thus he speaks (II, p. 88) of king Aśoka, "great-grandson of king Bimbisāra," who in 100 A.B. transferred his capital from Rājagṛha to Pāṭaliputra. Again he speaks (I, p. 267) of Aśoka, king of Magadha, who in 100 A.B. built five hundred monasteries for the benefit of as many Arhats



settled in Kashmir and gave up the whole country to the Buddhist church. Evidently the author confused the great king Aśoka with his namesake Kālāsoka of the Sinhalese chronicles (Kākavarṇa of the Purāṇas) who succeeded his father Śiśunāga on the throne of Magadha. According to the Purāṇas Bimbisāra was fourth in succession from Kākavarṇa who was the son of Śiśunāga, while in the version of the Sinhalese chronicles Kākavarṇa was the son of Susūnāga who supplanted the dynasty of Bimbisāra. Hiuen Tsang's statement introduces us to a third version of early Magadhan genealogies. This preserves the Purāṇic interval of three generations between Kākavarṇa and Bimbisāra but reverses the order of descent. Its chronology of 100 A.B. again is quite different from that of the Purāṇas and Sinhalese chronicles.

The story of Aśoka forms, as it were, the transition to another class of compositions utilised by the pilgrim in his description of India. This corresponds to what may be called the Lives or Legends of the great Founder of the Faith in his past and present lives as well as those of the four past Buddhas, and of the future Buddha, the tales of such Masters as Aśvaghōṣa, Nāgārjuna, Deva, Kumāralabdha, Pārśva, Manoratha, Asaṅga, Vasubandhu, Śīlabhadra, Dīnāga, Bhāviveka, Guṇaprabha, Saṅghabhadra, Vimalamitra, Guṇamati and Sthiramati. (For references see Watter's Index s.v.). These stories are traceable in sundry Buddhist texts, sometimes with such slight differences as indicate varying versions.

In the course of his narrative, Hiuen Tsang refers to some of the great events in the Buddhist church-history. Such, e.g. is his account of the Council of Rājagṛha (II, pp. 159-160) which refers to the preparation of two sets of canon, viz., "the President's Collection" (*Sthaviranikāya*) at the Council of Mahākāśyapa and "the Great Congregation's Collection" (*Mahāsaṅghikanikāya*) at the Council of the mixed majority of Bhikṣus. Such again is Hiuen Tsang's description of the Second Council (II, 75) which was held at Vaiśālī. Fuller accounts of the first two Councils are found in the Vinaya treatises of almost all the principal Buddhist sects such as the Theravādins, the Mahīśāsakas, the Dharmaguptas, the Haimavatas, the Mahāsaṅghikas, and the Mūlasarvāstivādins of which the last five are preserved in Chinese versions and the Mūlasarvāstivādin is preserved also in the Tibetan version. A short account of the Council of Kaniṣka occurs in the Mūlasarvāstivādin Vinaya. (For a comprehensive survey of Vinaya, Sūtra and allied texts bearing on the Council of Rājagṛha, see Przyluski, *La Concile de Rājagṛha*; for the Council of Kaniṣka, see Huber, *BEFEO*, t. 14, translating the story in Bhaiṣajyavastu section of the Mūlasarvāstivādin Vinaya). A general comparison of

Hiuen Tsang's accounts with those of the canonical texts seems to prove that he followed imperfect and somewhat faulty versions of the first two Councils, while his notice of Kaniska's Council is probably the fullest that has come down to us (see Watters' comparisons, *loc. cit.*).

Another class of authorities utilised by Hiuen Tsang may be mentioned under the head 'Records of Monasteries'. The fullest account that he gives in this connection is about the famous Monastery of Nālandā (Watters II, pp. 164-165. Cf. *Life* p. 110). In the course of his description Hiuen Tsang, after giving two conflicting traditions about the origin of the name, mentions how the original establishment consisting of a mango-grove was purchased for Buddha by five hundred merchants. "Soon after Buddha's decease" king Śākṛāditya built a monastery which was followed by the building of five other monasteries by as many kings *viz.*, Buddhagupta, Tathāgatagupta, Bālāditya, Vajra and an unnamed king of mid-India. How confused the chronology is may be gauged from the fact that while the *Records* mention Śākṛāditya as having lived soon after Buddha's decease, the *Life* refers to seven-hundred years as intervening between the foundation of the monastery and Hiuen Tsang's time. The Pāli canonical tradition again, while representing the Buddha as visiting the place on several occasions, is silent about purchase of the mango-grove for him by 500 merchants. (For references to Nālandā in the Pāli canon, see Hirananda Sastri, *Nalanda in Ancient Literature, Proceedings of the All-India Fifth Oriental Conference*, Vol. I. pp. 386-400. Of the five named kings of Hiuen Tsang the first two have recently been identified on plausible grounds with as many known kings of the Gupta dynasty, *viz.*, Kumāragupta I and Buddhagupta, who ruled in the second half of the fifth century A.D. Cf. Raychaudhuri, *op. cit.* p. 501). In the case of many other monasteries, Hiuen Tsang is careful to record the names of the great scholars who lived there and wrote their works.

Quite different from the above is the branch of official annals in charge of appropriate officers, of which a tantalisingly brief account is given by Hiuen Tsang, in connection with his general description of India. He says (Watters, I, p. 154) : "As to their archives and records there are separate custodians of these. The official annals and state-papers are called collectively *ni-lo-pi-t's* (or *ch'a*); in these good and bad are recorded and instances of public calamity and good fortune are set forth in detail". It is not possible to connect these interesting annals (of which the Sanskrit original has been restored as *Nīlapīṭa*) with the functions either of the Akṣapaṭalika of the Arthaśāstra or the Pustapāla of Sanskrit epigraphs. For the former was more or less

in charge of legal or financial documents, while the latter was entrusted with keeping records of boundaries of fields and so forth. Whatever that may be, Hiuen Tsang seems to give several concrete instances of such annals in the course of his work. Thus, while mentioning an anecdote of "Vikramāditya King of Śrāvastī" (I, pp. 211-212), he tells us that the 'State Annalist' had made a record of the fact that Manoratha the Buddhist Master had once paid a barber the same sum which the king gave to a peasant, viz. a lack of gold coins; this so much wounded the king's pride that he called together an assembly of one hundred learned non-Buddhists to meet Manoratha in discussion. Again while describing the country of Mo-la-po (Mālava?) Hiuen Tsang (II, p. 242) quotes the local records as mentioning a good and able king called Śilāditya who reigned over the country sixty years before the pilgrim's arrival.

Dynastic history properly so called is occasionally referred to in Hiuen Tsang's work. Of Nepal he says (II, p. 84) that the kings were Kṣatriya Licchavīs and were "eminent scholars and believing Buddhists". "A recent king" whose name is given as Amśuvarman, had, we are told, composed a treatise on etymology. This account is in general agreement with what history tells us about a long line of Licchavi (otherwise called Sūryavamśi) kings of Nepal, who reigned from the 1st century to the middle of the 8th century A.D. (See R. G. Basak, *History of North-Eastern India*, pp. 283-285 for the latest account of this dynasty). Of one of these kings, Vṛṣadeva, the Vamśāvalī says that he "built monasteries and installed images of Lokēśvara and other Buddhist divinities" (Ibid, p. 286). In other respects however, Hiuen Tsang's account seems to be imperfect, if not faulty. Thus, most of the Licchavi kings are known from their inscriptions to have been followers of the Brahmanical religion. Again Amśuvarman, who, by the way, belonged to a different dynasty (the Thākuri) was not "a recent king" in Hiuen Tsang's time. For his records can be traced certainly to 646 A.D. and probably also to 651-652 A.D. (See Basak, *op. cit.*, pp. 293-295). The pilgrim's faulty rendering of the dynastic history is probably due to the fact that he did not personally visit the country. Speaking of the country of Kāmarūpa, Hiuen Tsang says (II, p. 186), that the reigning king called Bhāskaravarman (or Kumāra) was a Brāhmaṇa by caste and 'a descendant of Nārāyaṇa Deva', while the sovereignty was transmitted in his family for one thousand generations. This statement agrees on the whole with the contemporary Nidhanpur grant of Bhāskaravarman, which, after tracing the line of kings to Viṣṇu's son Naraka, places an interval of nearly three thousand years after Naraka's second successor during which Kāmarūpa was ruled by many kings of the same race. Here again, as in

the case of Nepal, the pilgrim must have borrowed his account from existing dynastic records. Most copious of the pilgrim's references to dynastic histories are those relating to Kashmir. Of this kingdom he gives a long connected account (I, pp. 265-279) which may be arranged in the following chronological order :

- 50 A.B.—Reclamation of Kashmir by Madhyāntika, disciple of Ānanda, in accordance with Buddha's prophecy.  
Soon after Madhyāntika's decease—Foreign slaves became rulers of the country and were contemptuously called *Kṛita* (or 'the Bought').
- 100 A.B.—Settlement of 500 Arhats from India followed by gift of the whole country to the Buddhist church by Aśoka, 'king of Magadha'.
- 400 A.B.—Meeting of Kaṇiṣka's Council and his renewal of Aśoka's gift of the whole country to the Buddhist church.
- 600 A.B.—Invasion of Kashmir by a zealous Buddhist king of the Tokhara country, who killed the Kṛitīya tyrant and restored Buddhism to the country.
- In course of time Kṛitīyas regained sovereignty and Kashmir gave itself to other sects.

To the above we may add what Hiuen Tsang says in another context (I, pp. 288-289) about Mihirakula, king of the Indians, who after his defeat by Bālāditya, king of Magadha, treacherously seized the throne of Kashmir and caused the demolition of 1600 topes and monasteries and put to death nine *koṭis* of lay adherents of Buddhism. He reigned some centuries before Hiuen Tsang's time.

Some of these traditions have more or less exact parallels in extant Buddhist texts and are no doubt derived from similar sources (Cf. the parallels which Watters, loc. cit., draws between Hiuen Tsang's account of Madhyāntika's reclamation of the settlement of 500 Arhats and of the Council of Kaṇiṣka with corresponding narratives in the *Aśokāvadāna*, in Sarvāstivādin Vinaya, in Paramārtha's *Life of Vasubandhu* and in Tāranātha's *History of Buddhism*). Other traditions are of the same type as those appearing in the first three books of Kalhaṇa's *Rājatarāṅgiṇī* (Cf., e. g., Madhyāntika's story with what Kalhaṇa tells us about Prajāpati Kaśyapa who caused the gods to descend for killing a demon dwelling in the lake and who created the land known as Kashmir through that process (*Rājatarāṅgiṇī*, I, 26-27). In Kalhaṇa, (I, 102-3) as in Hiuen Tsang, Aśoka figures as a great king who embraced the doctrine of Jina and built numerous *stūpas* in Kashmir.

Even the confused statements of the pilgrim about the varying fortunes of Buddhism is paralleled by Kalhaṇa's account of the prosperous times of Buddhism under Abhimanyu I, followed by the destruction of the Buddhists and restoration of the traditional cult through favour of the Nāgas in subsequent times (I, 177-185). As regards Mihirakula, Kalhaṇa, like the Chinese pilgrim, dwells on the king's horrible cruelties calling him the 'destroyer of three crores of human beings'. The pilgrim's fantastic chronology of the king's reign is even outdone by Kalhaṇa who would assign him to the period 704-634 B.C. (For this see Stein, *Rājatarāṅgiṇī* tr. Introduction, p. 65). It would thus seem that Hiuen Tsang drew his materials from the type of compositions which formed the principal source of Kalhaṇa's *Rājatarāṅgiṇī*, viz., the chronicles and lists of kings.

Besides the above, Hiuen Tsang mentions some fragments of what may be called contemporary history based chiefly on personal observation and enquiries. This is the case with his account of Śaśāṅka, 'the recent king' of Karmasuvārṇa (I, p. 343, II, 92, 115-116 etc.) who is stigmatised as a great persecutor of Buddhism and as the treacherous murderer of Rājyavardhana; of Bhāskaravarman, king of Kāmarūpa (I, p. 348; II, p. 186 etc.) who welcomed the pilgrim to his capital; and lastly and above all, Harṣa (I, pp. 343-344, 349 etc.), who became the pilgrim's devoted disciple and entertained him at his royal assemblies of Kanyākubja and Prayāga.

To sum up. The historical and semi-historical records utilised by the pilgrim in his great work may be broadly classified under eight heads: (i) pre-Buddhistic tales of the foundations of cities, (ii) topographical traditions connected with kings of the past, (iii) the *Aśokāvadāna*, (iv) canonical and non-canonical works containing references to the lives or legends of the saints, Buddhist church-history and so forth, (v) records of monasteries, (vi) official annals, (vii) dynastic history as recorded in Vamśāvalis, royal chronicles and so forth, (viii) contemporary history based chiefly upon personal observation. In many of these cases the traditions had become mixed up with extraneous matter (Buddha's prophecies and so forth). What was worse still, they had become charged with confusion of names (Cf. the cases of Aśoka and Kālāśoka), and specially and above all, by confusion of chronology (cf. the cases of Aśoka, Kaniṣka and Mihirakula). The chronology is uniformly recorded, as might be expected, according to the Buddhist era.

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PĀIKPĀRĀ VĀSUDEVA IMAGE INSCRIPTION  
OF KING GOVINDACANDRA OF BENGAL

— REGNAL YEAR 23.

By DINES CHANDRA SIRCAR

A few years ago, an image of Vāsudeva was discovered below the surface of the earth at a village called Pāīkpārā in Vikrampur. The village is within the jurisdiction of the Tangīgārī Police Station (Munshiganj Subdivision) of the Dacca District. Mr. Kiran Chandra Sen managed to secure the image for the Āūtśāhī Pallī-Kalyāṇ-Āśram, and it still lies in the Āśram's office at Āūtśāhī which is not far from Pāīkpārā. Recently an inscription on the pedestal of the image drew the attention of Mr. Jogendra Nath Gupta, author of the *Vikram-purer Itihās* (in Bengali), who secured inked estampages and eye-copies of the record prepared by Mr. Manindra Bhushan Gupta. I edit the inscription from the estampages and eye-copies, which have been kindly supplied to me by Mr. J. N. Gupta.

The inscription contains only three and half lines of writing between the usual figures of upāsaka at the right and left ends of the pedestal. A small figure of Garuḍa in the centre and a line coming down from above have practically divided the lines of writing into three parts. The *akṣaras* are about  $\frac{1}{3}'' \times \frac{1}{2}''$  in size, and are in a fairly good state of preservation. The alphabet is Proto-Bengali and resembles the characters used in East Indian inscriptions of about the eleventh and twelfth centuries A. D. Initial *u* occurs once, and medial *u* resembles a small triangle placed at the base of the consonant. The *has-anta t* resembles the modern Bengali form turned upside down. Medial *e* is almost fully developed. Of the more developed *akṣaras*, *r* is of the triangular shape, and the lower part of both *t* and *bh* is curved towards the left. Other *akṣaras* resemble the forms found in the Pāla and Sena inscriptions belonging to the eleventh and twelfth centuries A. D. Triangular *r* (along with the wedge-shaped *r*) is however found in the Irda grant<sup>1</sup> of Nayapāla assigned by scholars to the end of the tenth century. The Caṇḍimau image inscription<sup>2</sup> of Rāmapāla uses the *akṣaras t* and *bh* with the lower part curved towards the left, and

1. *Ep. Ind.*, XXII, p. 150.

2. *M.A.S.B.*, V, Plate XXX.

this tendency of the lower curve is noticeable in some Indian inscriptions of the 11th century. Developed *e* sign is found in the records of Śricandra. Considering all these facts and also that the differentiation of Behari and Bengali forms of *akṣaras* are complete in the twelfth and thirteenth centuries and that R. D. Banerji has satisfactorily demonstrated<sup>3</sup> the simultaneous use in the Pāla period of both the older script of the records on copper and stone and the cursive script of common correspondence, it seems that the record under notice cannot be earlier than the middle of the eleventh century A. D. Of course the Bhāterā inscription of Govinda Keśavadeva<sup>4</sup> assigned by scholars to 1049 A.D. uses a more developed script ; but it cannot be definitely assigned to the eleventh century and may be later. I am inclined to believe that the Pāikpārā inscription is written in the cursive script of the mid-eleventh century.

The language of the inscription is corrupt Sanskrit. But for the sixth *viḥḥakti* in °*candrasya* (line 1c) and the wrongly placed *visarga* in *sutaḥ* (line 2c), the record may have as well passed as one written in Bengali.

The inscription records that the image of Vāsudeva was caused to be made by a person called Gaṅgādāsa who has been described as *rāḥajika* and as the son of *uparata* Pāradāsa. *Rāḥajika* appears to indicate an inhabitant of a village like Ralaja. The word *uparata* shows that Pāradāsa was dead before the date of the construction of the image. This date is given as the twenty-third year of Śrīmad-Govindacandra, that is to say, the twenty-third regnal year of a king named Govindacandra. No inscription of this king has so far been published ; but king Govindacandra of Vaṅgādeśa who came into conflict with the army of Rājendra Cola I a little before A. D. 1024<sup>5</sup> is wellknown to all students of Indian history. Of late some records of kings belonging to the Candra dynasty to which Govindacandra belongs, have been discovered. From these we are now in a position to form an idea about the rule and the kingdom of some of the Candra kings. The present epigraph further supplies some valuable informations. Firstly, the Vikrampur region where the image is found very probably formed part of Govindacandra's kingdom.<sup>5a</sup> Secondly, he ruled at

3. *Origin of the Bengali Script*, Calcutta, 1919, pp. 60, 68-69.

4. Bhandarkar, *List*, No. 1769.

5. *S.I.I.*, I, 1890, pp. 97, 99 ; *Ep. Ind.*, IX, p. 229 ff.

5a. The Candra kingdom included the Vikrampur region during the time of Śricandra. The suggestion that Govindacandra also ruled over the region

least for more than 22 years, that is to say, for an approximate period of 25 years. Thirdly, if we have to assign the record on palaeographic grounds to about the middle of the 11th century, Govindacandra's reign may roughly be ascribed to the period circa 1020-45 A.D.

In the inscription of Rājendra Cola, Govindacandra has been described as (the lord) of Vaṅgāladeśa, and this country has been clearly separated from Dakṣiṇa-Rāḍha, kingdom of Raṇaśūra, and from the kingdom of Mahīpāla which apparently included Uttara-Rāḍha.<sup>6</sup> These indications together with the evidence of the inscriptions of the family to which Govindacandra belongs appear to show that Vaṅgāladeśa lay to the east of Rāḍha, that is to say, in south-eastern Bengal. As the ancient country of Vaṅga is also located in that part of Bengal, one has to determine whether Vaṅga and Vaṅgāla are identical. The name Vaṅgāla is found in records not earlier than the 11th century A.D. As regards the origin of the name, the author of the *Āin-i-Akbarī*<sup>7</sup> says that the original name of Vaṅgāla was Vaṅga, that its former rulers raised mounds measuring ten yards in height and twenty in breadth throughout the country, which were called *āl*, and that from this suffix the name *Vaṅgāla* took its rise and currency. This 16th century identification of Vaṅga and Vaṅgāla has to be reconciled with the earlier evidence of inscriptions which mention Vaṅga and Vaṅgāla separately. Prof. H. C. Raychaudhuri<sup>8</sup> has carefully examined all the evidences and has shown that the term Vaṅga was applied in ancient times in two senses. In a narrower sense Vaṅga signified the territory including the Vikrampur region and some parts of the country to the east of the Brahmaputra; in a wider sense however the term sometimes indicated the whole region from the east of the Brahmaputra upto the Kāsāi river (ancient Kapiśā) in the Midnapore District in the west. There can be no doubt that the Faridpur and Buckerganj Districts formed parts of Vaṅga. It is quite natural to suppose that the earth-mounds (*āl*) were constructed (as is the case

is further supported by the very recent discovery made by Dr. N. K. Bhattasali in a village of Vikrampur of another image inscription dated in the 12th regnal year of Govindacandra.

6. *Loc. cit.* Some scholars think that Uttara-Rāḍha has here been mentioned as the kingdom of Mahīpāla I. The language of the Tirumalai record however shows that the Cola army defeated Mahīpāla and reached Uttara-Rāḍha and the Ganges. This seems to indicate that Uttara-Rāḍha formed part (may be the major division) of Mahīpāla's kingdom.

7. Jarrett's translation, II, p. 120.

8. *Studies in Indian Antiquities*, pp. 187-88.



even today) in order to check the tides of floods in the southern part of Vaṅga which was low, abounding in streamlets, and nearer the sea. It is interesting in this connection to note that some parts (very probably the Buckerganj District and parts of the Faridpur District) of Southern Bengal were actually known as *nāvya* (a region accessible by boats) which seems to stand for the modern Bengali word *bhāṭi*, i.e. the southern region which is nearer the sea (from Bengali *bhāṭā*, tide, i.e. with the stream necessarily running towards the south to meet the Bay of Bengal). In this connection, the place called Vaṅgāla-baḍā-bhū in Rāmasiddhipāṭaka in the Nāvya region of Vaṅga in Viśvarūpasena's Sāhitya Pariṣat grant<sup>9</sup> and identified with Bāṅgorā in the region of Rāmasiddhi in the Gournadī P.S. of the Buckerganj District is very interesting to note. It is therefore not impossible to think that the Buckerganj-Faridpur region of Vaṅga was originally known as Vaṅgāla and that it was recognised as a separate political unit only when in the 10th century the Candra dynasty founded a kingdom in Candradvīpa (=Bāklā Candradvīpa=Buckerganj District and the adjoining region) which seems to have roughly corresponded to Vaṅgāla.<sup>10</sup> Dr. R. C. Majumdar<sup>11</sup> has recently identified Vaṅgāla-deśa with the district round Chittagong which he takes to have been the original seat of the Pālas and the Candras. The accounts of medieval European travellers referring to the "City or Port of Bengala" near modern Chittagong, on which Dr. Majumdar bases his theory, however do not appear to have any thing to do with the capital of the ancient Vaṅgāla-deśa, the kingdom of the Candras in the 10th and 11th centuries A.D. The biggest port of medieval Bengal was situated near the mouths of the Padmā and the Meghnā, not far from modern Chittagong. Originally the medieval "City or Port of Bengala" seems to have signified "the city or port *par excellence* belonging to the country of Bengala (which term then roughly indicated the whole of Bengal)." <sup>11a</sup> It may moreover be pointed out that the Chittagong area did not probably form an integral part of the Mughal Subah of Vaṅgāla before the 17th century<sup>12</sup>. Dr. Majumdar's theory regarding the original seat of the Pālas and the Candras again can hardly be conclusive until inscriptions of the dynasties are discovered in the

9. *Ins. Beng.*, III, p. 143 ff.

10. Raychaudhuri, *op. cit.*

11. *I. H. Q.*, XVI, p. 200.

11a. See my note on Vaṅgāla-nagarī in the *Śrī-Bhārati* (Bengali), Jyāiṣṭha, 1348 B.S., pp. 627-29.

12. Raychaudhuri, *loc. cit.*

Chittagong region or any definite evidence supporting the theory is available. But to make clear the position of the Candras in general and Govindacandra in particular we have to give an abstract account of the history of East Bengal from the 7th to the 12th century A.D.

The inscriptions of the Khadga kings may be palaeographically assigned to about the end of the 7th century A.D. and it is probable that the Vaṅga king who was the contemporary of king Yaśovarman of Kanauj (4th decade of the 8th century) belonged to the Khadga dynasty. Dr. R. C. Majumdar reads the date of the Ashrafpur grants of Devakhadga as year 73 and refers the year to the Harṣa era. But as Harṣa is known to have nothing to do with East Bengal, I am inclined to take the year (the reading of which is doubtful) as referring to Devakhadga's regnal year. This king lived upto a very old age as is proved by the Ashrafpur grant recording the gift of his son but bearing his own seal.<sup>14</sup> One of the dates has been recently read as year 63.<sup>15</sup>

On the evidence of the Bādāl record (v. 2), Devapāla's Munghyr grant (v. 3), Bhoja's Gwalior *prasaṣti*, Karkarāja's Baroda grant, Bālāditya's Chāṭsū record, etc., I have tried to prove elsewhere<sup>16</sup> that Gopāla the founder of the Pāla dynasty originally obtained a principality in Vaṅga or East Bengal about the middle of the 8th century. It is possible to suggest that in the 4th decade of the 8th century the Khadga power collapsed as a result of the defeat inflicted by Yaśovarman and that a chaotic condition prevailed in East Bengal for a short period. To end this *mātsya-nyāya*, the chiefs of the country helped Gopāla, who appears to have been a military chief like his father, to gain the throne.<sup>17</sup> According to Tāranātha,<sup>18</sup> the king, after whom the *mātsya-nyāya* ensued, belonged to the Candra family; it is however probable that the Tibetan historian has confused *Candra* with *Khadga*. The Pālas as I have shown elsewhere,<sup>19</sup> gradually conquered many parts of Bengal and Bihar and soon transferred their capital to somewhere in North Bengal. That is possibly why a 12th

13. *J. P. A. S. B.*, XIX, p. 375 ff.; Bhandarkar, *List*, Nos. 1394, 1588.

14. Bhandarkar, *List*, No. 1590, note 3.

15. *Ibid.*, No. 1394.

16. *Proc. 2nd I. H. C.*, Allahabad, 1938, p. 194; *N. I. A.*, II, 1939, p. 383.

17. *Gauḍalekhamālā*, pp. 11-12, verses 3-4.

18. *I. H. Q.*, XVI, p. 200.

19. *Proc. 2nd I. H. C.*, *loc. cit.*; *N. I. A.*, *loc. cit.*

century work called *Rāmacarita* describes Varendrī (North Bengal) as the *janaka-bhū* of the contemporary Pāla king.<sup>19a</sup>

According to the 12th verse of the Bāṅgaṛ grant<sup>20</sup> of the 9th year of Mahīpāla I (c. 992-1040), this Pāla king defeated a host of enemies and acquired his *pitrya-rājya* which had been *anadhikṛta-vilupta*. The expression *anadhikṛta-vilupta* may indicate "unconquered and thus lost" or "occupied by persons who are not lawful occupants." But the exact significance of the expression *pitrya-rājya* (paternal kingdom) is not easy to determine. It may indicate the whole kingdom of the forefathers of Mahīpāla I; or only Vaṅga (East Bengal) where the Pālas originally rose to power; or only Varendrī (North Bengal) which was considered in the 12th century as the *janaka-bhū* of the Pālas; or the major part of Mahīpāla's ancestral kingdom including both Varendrī and Vaṅga. Whatever the real significance of the expression may be, it is interesting to note that in the second half of the 10th century Vaṅga was under the rule of an independent king of the Candra dynasty.<sup>20a</sup>

Four inscriptions of a Buddhist king named Śrīcandra have been discovered in the Vikrampur region and in "South" Vikrampur, at Rāmpāl in the Munshiganj and Dhullā in the Mānikganj Subdivision of the Dacca District and at Kedārpur and Edilpur in the Mādāripur Subdivision of the Faridpur District.<sup>21</sup> The grants are issued from the Vikramapura-samāvāsita-jayaskandhāvāra and the Dhullā grant is dated in the king's 35th regnal year. The characters of the records have been proved to be earlier than the Bāṅgaṛ grant of Mahīpāla. Śrīcandra therefore ruled about the end of the 10th century A.D. Śrīcandra's records<sup>22</sup> prove that the Candra family was originally enjoying (i.e. ruling) Rohitāgiri which has been identified by some with Rohtāsgarh in Shāhābād District, but by others with the Lālmāi hills in the Tippera District.<sup>23</sup> As it is now generally believed that the Candra of Bengal were connected with the Candra of Arakan, it is possible to think of Rohitāgiri as belonging to that region. It is also

19a. Of course *janaka-bhū* may simply mean "ancestral kingdom or a part of it."

20. *Gauḍalekhamālā*, p. 95, v. 12.

20a. The passage in question is generally interpreted with reference to the occupation of parts of Bengal by the Kambojas whose records have been discovered at Bāṅgaṛ (Dinājpur Dist.) and Irda (Bālāsore Dist.).

21. *Ins. Beng.*, III, pp. 4 f.; 165 ff.

22. *Ibid.*, p. 4, verses 2 ff.

23. *Ind. Cult.*, II, p. 758.

not impossible that Rohitāgiri originally formed a part of Candradvīpa, i.e. the Buckerganj region including the adjoining *dvīpas* in the Bay of Bengal.<sup>23a</sup> Whatever however the identification of Rohitāgiri may be, it is evident that the Candras were landlords of that place. In this Candra family was born a person named Pūrṇacandra who had a son named Suvarṇacandra. They were not kings. Trailokyacandra, son of Suvarṇacandra, became lord of Candradvīpa and the mainstay of the fortune of the king of Harikela. There can therefore be hardly any doubt that Trailokyacandra was the first king of the family and that he flourished as a feudatory of the king of Harikela<sup>24</sup> which is another name of Vaṅga according to the 12th century lexicographer Hemacandra.<sup>25</sup> This king of Harikela=Vaṅga, overlord of Trailokyacandra of Candradvīpa, was no doubt the contemporary Pāla king the original seat of whose family was Vaṅga. There are reasons to believe that the Puṇḍravardhana-bhukti which included Vaṅga during this period was being directly ruled from the Pāla king's capital somewhere in North Bengal. It is not known if Trailokyacandra remained faithful to his overlord all through his life; his son Parameśvara-Paramabhaṭṭāraka-Mahārājādhirāja Śricandra however is known to have ruled over the Vikrampur region in Vaṅga as an independent ruler. But we do not know whether he became independent of his overlord late in his reign. The Bhārellā inscription<sup>26</sup> discovered in the Tippera District is dated possibly in the 18th year of another Candra king named Layahacandra who may have been a successor of Śricandra. But whether he ruled over the whole of Śricandra's kingdom is not known.

The Bāghāūrā image inscription<sup>27</sup> is dated in the 3rd regnal year of a king named Mahīpāla who is generally identified with Mahīpāla I of the Pāla dynasty. If this identification be accepted, Mahīpāla I, true to his claim in the Bāṅgaṅ grant, may have recovered his fatherland Vaṅga from the Candras. In that case we have to suppose that the Candra power was revived by Govindacandra even during the lifetime of Mahīpāla I. This is proved by the joint evidence of the Pāikpārā inscription under notice and the inscription of Rājendra

23a. The word *giri* does not always mean "a hill"; it also indicates "an elevation."

24. This meaning of the passage आधरो हरिकेलराजकुदच्छस्मितानां ध्रियां was first suggested to me by Prof. Raychaudhuri.

25. Raychaudhuri, *op. cit.*

26. *Ep. Ind.*, XVII, p. 351. ५

27. *Ibid.*, p. 355.

Cola I. Soon however Vaṅga again passed to the Pālas about the end of the reign of Govindacandra himself or during that of one of his successors. This is proved by the joint evidence of the *Rāmacarita* and a medical work called *Śabdapradīpa*. In the list of feudatories of Rāmapāla (c. 1084-1126)<sup>27a</sup> given in the *Rāmacarita*<sup>28</sup> not a single of them is found to belong to East Bengal. This fact suggests that Vaṅga was under the direct rule of this Pāla king who lost North Bengal to the Kaivarttas and had the western part of his kingdom under the rule of his feudatories. According to the *Śabdapradīpa*,<sup>29</sup> the author's father was the court-physician of Rāmapāla lord of Vaṅga (*Vaṅgeśvara*), while his great-grandfather was a physician at the court of Govindacandra, doubtless the same as the king referred to in the Pāikpārā inscription. It is interesting to note in this connection that Vīgrahapāla III, father of Rāmapāla, is said in some records to have traversed the eastern region in course of his *digvijaya*.<sup>30</sup> It is therefore possible to suggest that it was Vīgrahapāla III who reconquered Vaṅga for a second time from the Candras. It must however be admitted that there is no inherent improbability in the identification of Mahīpāla of the Bāghāūrā inscription with Mahīpāla II (c. 1080-84 A.D.)<sup>31</sup> of the Pāla dynasty, who was the eldest brother and a predecessor of Rāmapāla. In that case we may think of a continuous Candra rule in Eastern Bengal without any Pāla interregnum. The identification of Mahīpāla of the Bāghāūrā record with Mahīpāla II of the Pratihāra dynasty<sup>32</sup> however is quite unconvincing, as the Pratihāras are known to have had nothing to do with Eastern Bengal.

Dr. N. K. Bhattacharya thinks that Govindacandra is identical with king Gopīcand known from some Bengali and Panjabi ballads, a drama, and the tradition recorded by Tāranātha.<sup>33</sup> This Gopīcand

27a. A.D. 1120 suggested to be the date of Rāmapāla's death (*I.H.Q.*, XVII, p. 222) can by no means be accepted as established. There can be no doubt that in the interpretation of the significance of Govindapāla's *atila-rājya* years, R. D. Banerji alone is right.

28. V. R. S. edition, pp. xxvi-xxviii.

29. *Ibid.*, p. xxiii.

30. *Gauḍalekhamālā*, p. 125-25, verse 14.

31. Though palaeography is not a sure guide in such cases, the characters of the Bāghāūrā record appear to be a little earlier than the end of the 11th century which is the time of Mahīpāla II.

32. *I. H. Q.*, XVI, p. 179 ff.

33. *Ibid.*, XVI. *loc. cit.*

is said to have been the son of Tilakcand and the ruler of Mṛkul, i.e. the Mehārkul Pargana of the Tippera District. If the identification of Trailokyacandra of the inscriptions and Tilakcand father of Gopīcand according to some legends as also the identification Govindacandra=Gopīcand be accepted, Govindacandra becomes probably a younger brother of Śrīcandra. In many points however the legends cannot be easily reconciled with one another and with the known facts of Candra history, and, though they may contain germs of historical truth, their evidence must remain doubtful unless corroborated by other independent sources. The revival of Pāla power in East Bengal after Govindacandra however may be at the root of the Tibetan tradition placing Gopīcand before the *mātsya-nyāya* ending in the accession of the first Pāla king.<sup>34</sup>

We have seen that the Pālas were again ruling over Vaṅga after the Candras. The country or the major part of it seems to have passed to the new dynasty of Varmans even during the reign of Rāmapāla himself. These Varmans belonged to the Yādava clan and originally lived at Siṃhapūra.<sup>35</sup> The only other Varman family, both belonging to the Yādava clan and ruling over Siṃhapūra in the Panjāb, is known from the Lakkhāmaṇḍal inscription.<sup>36</sup> There can therefore be hardly any doubt that the Bengal Varmans were an offshoot of the Yādava Varmans of Siṃhapūra in the Panjāb. A person named Vajravarman who was a leader of the Yādava army was born in the Varman family of Siṃhapūra. His son Jātavarman is rightly supposed to have been the first king of the family.<sup>37</sup> He married a daughter of the Kalacuri king Karṇa (1041-72 A.D.) and was possibly a leader of Karṇa's army. He was probably with Karṇa's army, as I have suggested elsewhere,<sup>38</sup> when the latter conquered Aṅga (East Bihār) and advanced as far at least as the village of Pāikor in the Bīrbhūm District.<sup>39</sup> The Belābo grant<sup>40</sup> says that Jātavarman spread

34. *Loc. cit.*

35. *Ins. Beng.*, III, p. 19, verse 3.

36. *Ep. Ind.*, I, p. 12 ff.

37. *Ins. Beng.*, III, p. 22, n. 4; cf. his comparison with Pṛthu "the first king" according to the Purāṇas.

38. *Proc. 2nd I. H. C.*, p. 198.

39. *A. S. I.*, 1921-22, pp. 80, 115.

40. *Ins. Beng.*, III, p. 20, verse 8. Note that Aṅga was the name of Pṛthu's grandfather. That the comparison with Pṛthu may have something to do with the Aṅga country was first suggested to me by Prof. Raychaudhuri

*rājya-śrī* in the Aṅga country. This fact seems to suggest that the Varman son-in-law for some time ruled Aṅga under his Cedi father-in-law. His political influence spread over North Bengal where he defeated Divya, the Kaivarṭta usurper of Varendrī, and over Assam.<sup>41</sup> It should be noticed that Jātavarman is not known to have anything to do with East Bengal. The Pālas however soon recovered Aṅga possibly after the death of Karna and we find a Rāṣṭrakūṭa chief named Mahana as governor of Aṅga under Rāmapāla.<sup>42</sup> When the Varmans were ousted from Aṅga, they appear to have taken shelter somewhere in North Bengal. This is probably suggested by the facts that Jātavarman had political relations with North Bengal and that the Varmans appear to have held the Rājshāhī region as late as the time of Bhojavarman who granted land in the Kauśāmbī-gaccha which has been identified with Kuśumbā in the Rājshāhī Dist.<sup>43</sup> It is also very interesting to note that the *Rāmacarita* mentions one Hari as a friend of Bhīma, the Kaivarṭta king of North Bengal.<sup>44</sup> This Hari seems to be no other than Harivarman, son of Jātavarman. After the defeat of Bhīma, his friend Harivarman tried to check the Pāla advance with the remnant of Bhīma's forces; but he was very soon won over by Rāmapāla. Whether Harivarman got in this way his footing in East Bengal or conquered that region when Rāmapāla was engaged in the life and death struggle with Bhīma is not definitely known. He may have got parts or even the whole of the country from Rāmapāla as the price of his friendship. That he was ruling in East Bengal during the later years of Rāmapāla is suggested by another verse of the *Rāmacarita*.<sup>45</sup> A Ms. referring to the 39th regnal year of Harivarman<sup>46</sup> suggests a very long reign of this Varman king. This is again supported by the *Rāmacarita* which mentions Hari even in connection with the reign of Madanapāla (c. 1130-50).<sup>47</sup> His reign however possibly began before the acquisition of East Bengal by him. Harivarman was probably succeeded by his son who could not have ruled for a long period.<sup>47a</sup> The next king was Sāmalavarman who

41. *Op. cit.*, verse 20.

42. *Rāmacarita*, p. xxv f.

43. *Ins. Beng.*, III. p. 19.

44. *Rām.*, p. xxx; xxxiii.

45. *Ibid.*, III, verse 44.

46. Bhandarkar, *List*, No. 1715 n.

47. *Rām.*, IV, verses 37, 40.

47a. Cf. v. 16 of Bhaṭṭa Bhavadeva's *praśasti*. The non-mention of the name of Hari's son in this verse and other Varman records may suggest that he was a minor and the *de facto* ruler was Sāmala who ultimately usurped the throne. It may also be conjectured that both uncle and nephew at first declared themselves kings in different parts of the kingdom and that Bhavadeva supported the latter,

was probably Harivarman's younger brother. Sāmalavarman seems to have been succeeded by Bhojavarman. Both of these kings possibly had short reigns. About the middle of the 12th century, the Senas ousted the Varmanas and conquered East Bengal.

The Senas originally belonged to Karṇāṭa. This is not only proved by the typical Kanarese name of *Ballāla-sena*, but also by explicit statements in the Sena inscriptions. Vīrasena, the ancestor of the Sena dynasty, was a *dākṣiṇāṭya-kṣaunḍra* or a Deccanese prince.<sup>48</sup> According to the Deopārā inscription,<sup>49</sup> the glory of Sāmantasena, born in the family of Vīrasena, was sung about the Bridge, i.e. Setu-bandha-Rāmeśvara. He was a Brahma-kṣatriya, that is to say, "born in a family of the male and female progenitors of which one was a Brāhmaṇa and the other a Kṣatriya." He has also been described as a Karṇāṭa-kṣatriya and as a punisher of the enemies of the Karṇāṭa-lakṣmī i.e. the royal fortune of the Karṇāṭa country.<sup>50</sup> This apparently indicates that he came to the East in the train of the Western Cālukya army (under a prince like Vikramāditya VI) which may have attacked Eastern India jointly<sup>50a</sup> with Kalacuri Karṇa. Sāmantasena seems to have passed his last years on the banks of the Ganges in Rāḍha.<sup>51</sup> The Barrackpore grant<sup>52</sup> mentions Hemantasena, son of Sāmantasena, as *rājaraṣā-sudakṣa* which seems to indicate that he was a feudatory of the contemporary Pāla king. Hemantasena's son was Vijayasena who also was originally a feudatory of the Pālas.<sup>52a</sup> He secured his position by marrying a princess of the Śūra family, defeated the lord of Gauḍa i.e. the contemporary Pāla king, and thus became the first independent king of the family. The Barrackpore grant of Parameśvara-Paramabhaṭṭāraka-Mahārājādhirāja Vijayasena was issued from Vikramapura in the 62nd year of his reign.<sup>53</sup> He was apparently very old at that time and, as the 8th and 9th verses of the record sug-

48. *Ins. Beng.*, III, p. 46, verse 4.

49. *Ibid.*, p. 46 ff.

50. *Ibid.*, p. 47, verse 8.

50a. Cf. Ray, *D. H. N. I.*, II, p. 778.

51. *Ins. Beng.*, p. 47, verse 8.

52. *Ibid.*, p. 61 ff.

52a. Raychaudhuri identifies him with Vijayarāja of Nidrāvala, a feudatory of Rāmapāla, according to the *Rāmacarita*. The identification of Nidrāvala with the Nidrāli-gāi of the Vārendra Brāhmaṇas is not beyond doubt.

53. Bhandarkar refers the year to the Cālukya-Vikrama era and gets A. D. 1137-38 (*List*, No. 1682 note). The Senas of Bengal were also matrimonially allied with the Cālukyas. Rāmadevī, queen of Ballālasena, was a Cālukya princess. But the suggestion of Bhandarkar cannot explain why the Cālukya era has been used only once in the Sena records. Apparently Vijaya became independent late in life.



gest, the administration seems to have been actually controlled by his son Ballāla, born of his wife of the Śūra family. East Bengal was no doubt conquered from the Varmans, and it is not impossible that the list of princes like Vīra (Vīravarman ?), etc., vanquished by Vijaya-sena as given in the Deopārā record<sup>54</sup> may actually contain the name of one of Bhojavarman's successors whom we do not as yet know from any other source. It is however not necessary for us to go further with the history of East Bengal. What has been said is enough to show the position of the Candras and especially of Govindacandra in Vaṅga and Vaṅgāla.

*Text<sup>55</sup> of the Pāikpāyā Inscription*

|        |     |                       |     |             |     |                  |
|--------|-----|-----------------------|-----|-------------|-----|------------------|
| Line 1 | (A) | श्रीमद्गो-            | (B) | विन्दच-     | (C) | न्दस्य सम्यत् २३ |
| Line 2 | (A) | रालजिक-उ              | (B) | परत-पा-     | (C) | रदास-सुतः        |
| Line 3 | (A) | गङ्गादा-              | (B) | स-कारित-वा- | (C) | सुदेव-           |
| Line 4 | (A) | भट्टारक <sup>56</sup> |     |             |     |                  |

*Corrected Text*

श्रीमद्गोविन्दचन्द्रस्य संवत् २३ ॥ रालजिकोपरत-पारदाससुत-गङ्गादास-  
कारित-वासुदेव-भट्टारकः ॥

TRANSLATION

The year 23 of (the reign of) the illustrious Govindacandra. (This image of) Lord Vāsudeva (is) caused to be made by Gaṅgādāsa, son of the late Pāradāsa (and) an inhabitant of Ralaja (?).

54. *Ins. Beng.*, II, p. 48, verses 20, 21.

55. From estampages and eye-copies kindly supplied by Mr. J. N. Gupta.

56. Faint traces of a *visarga* may possibly be noticed after क् in the estampage.

## SOME CURE DEITIES

By NANIMADHAB CHAUDHURI

It is proposed in the present paper to examine some instances of belief in the divine agency of cure as opposed to the magical agency among Hindus and Hinduised tribes. Magic has found a large scope in the science of cure from the very earliest times and it is a testimony to the hold of magic on man's mind that survivals of beliefs in curative magic are still to be found in the most advanced societies, lurking in forms not easily recognisable. Belief in magic in the field of curative practices, counter-acting the malign influence of evil spirits causing disease, destroying embryos etc., appears in the R̥gveda. Magic in all its forms assumes a preponderant importance in the Artharvaveda, and the large mass of Tāntrika literature is perhaps the best example of the striking efflorescence of magico-religious ideas in the sacred literature of the Hindus. But we are not concerned with magic even in the limited field of cure; we shall confine ourselves to instances of direct appeal to the divine agency for cure. There are also other agencies of cure which owe their potency to divinity through intimate association or transmission. Their potency is thus derivative potency. To this class of secondary divine agencies belong trees, tombs, certain animals, water, holy places (*tīrthas*) etc. It is not proposed in this paper to deal with these secondary agencies.

Along with belief in the magical agency of cure there is to be found in the R̥gveda also belief in the divine agency of cure.

Rudra is the healer god in the R̥gveda. He is invoked to cure diseases and distribute medicines.<sup>1</sup> He is the best among physicians.<sup>2</sup> He possesses a thousand remedies.<sup>3</sup> Healing power is also attributed to the Aśvins. With medicines they gave eyes to Kaṇva and R̥jāśva who had become blind,<sup>4</sup> cured leprosy,<sup>5</sup> put in order fractured limbs, rejuvenated Cyavana.<sup>6</sup> Their healing powers are almost forgotten later, though they are often referred to as physicians to the gods. Viṣṇu appears as the protector of embryos in the R̥gveda, but there

1. *R̥gveda*, 1. 43. 2, 4.; 114. 1, 2, 5;

3. *Ibid*, 7. 46. 3.

5. *Ibid*, 1. 117. 7.

2. *Ibid*, 2. 33. 4.

4. *Ibid*, 1. 116. 16; 117. 8.

6. *Ibid*, 1. 117. 4; 116. 10.

does not appear any reference to his healing power. Dhanvantarī, the presiding deity of the Āyurvedic Science, appears in the epic<sup>7</sup> and is recognised as an incarnation of Viṣṇu in the Purāṇas.<sup>8</sup> No specific instance of his worship is known.

Rudra, whose healing powers are so highly praised in the Ṛgveda, is also a giver of death and disease. He is prayed not to destroy with his shafts the old among his worshippers, the young, the embryo in the womb, and their parents and not to inflict disease and injuries on them, their offspring, their kith and kin.<sup>9</sup> He destroys both cattle and men.<sup>10</sup> In the Atharvaveda and the Sūtras this malignant aspect of Rudra receives more attention than his healing powers. He attacks men with fever, cough and poison.<sup>11</sup> His Gaṇas attack men with death and disease.<sup>12</sup> Rudra has to be worshipped in a cattleshed for averting cattle disease.<sup>13</sup> In the Mahābhārata Rudra-Śiva is connected with death and disease. His wrath produces fever.<sup>14</sup> His healing power is not in evidence. The Viṣṇu and some other Purāṇas describe how in the fight between Kṛṣṇa and Vāṇa Daitya, Śiva created fever with one body, three heads and three legs to assist Vāṇa. This fever-demon got worsted in his fight with Kṛṣṇa. He took himself off declaring that those who would hear the story of his fight with Kṛṣṇa would be cured of fever.<sup>15</sup> Rudra-Śiva's healing power receives very little attention in the Purāṇas. The Devī Purāṇa states that Śiva removes fever, insanity, rheumatism, piles, cough, possession by evil spirits etc.<sup>16</sup> The Saura Purāṇa lays down that Śiva removes scrofula etc.<sup>17</sup>

Coming to the existing worship of Śiva among Hindus and Hinduised tribes we find that his healing powers have come to receive much attention. It is to be noted that this healing aspect of the god is not much in evidence in his domestic worship, but it is the

7. *Mahābhārata*, 12. ch. 208. (Bangavasi Edition).

8. *Brahmavaivartta Purāṇa*, *Śrīkṛṣṇajanmakhaṇḍa*, Ch. 51 (Bangavasi Edition).

9. *Ṛgveda*, 1. 114. 7, 8.

10. *Ibid*, 1. 114. 10.

11. *Atharvaveda*, 11. 2. 22.; 6. 90. 2.

12. *Sāṅkhāyana Śrauta Sūtra* iv. 19. 8. quoted by Macdonell, *Vedic Mythology*, p. 76.

13. *Āśvalāyana Gṛhya Sūtra*, IV. 8. 40; Pār. Gs. III. 8 etc.

14. *Mahābhārata*, *Śanti* P., ch. 14. 282.

15. *Viṣṇu Purāṇa*, Book 5, Ch. 33 vv. 14 f. (Bangavasi edition).

16. *Devī Purāṇa*, Ch. 7, vv. 71, 72 (Bangavasi edition).

17. *Saura Purāṇa*, Ch. 23, v. 58.

most important aspect in his worship at certain shrines. The most important of these shrines in Eastern India are those at Tarakeśwar and Gondalpārā in Hughly, Bengal, and at Vaidyanāthadhāma in the Santal Parganas. The Gondalpārā shrine is specially visited for cure of hydrophobia. "Syphilitic eruptions are believed to be cured by dropping rice, sugar and curds over the līṅga of Mahādeva, while dysentery and diarrhoea may be cured by pouring water on it."<sup>18</sup> The Tārakeśwar and Vaidyanāthadhāma shrines are visited for cure, particularly of chronic and deadly diseases. The usual practice followed at these shrines in case of such diseases is to offer *dharaṇā* till some medicine is prescribed in dream. These shrines are visited by Hindus of all castes, the Vaidyanāthadhāma shrine being visited also by Hinduised Santals, Oraons etc. The worship is offered through a Brahman priest but *dharaṇā* is offered either by the patient himself or a near relative of the patient. In Gujerat Śiva is worshipped by dropping rice, sugar and curds over the līṅga for cure of syphilitic eruptions and piles and water is poured over the līṅga for cure of dysentery and diarrhoea. Śiva is worshipped also for the cure of scrofula.<sup>19</sup> There are no special shrines which are visited for cure. There are many instances of Mahādeva represented by a wooden post or an earthen mound being worshipped by Hinduised tribes for cure of diseases in general. He is worshipped in the same capacity under such local names as Vīranātha, Burhā Bābā etc. by Hinduised tribes and tribes in Rajputana, Central Doab etc.<sup>20</sup> Burhā Bābā is worshipped for cure of ringworms by some Rajputana Jats<sup>21</sup>. Coming back to Bengal we find that Śiva is worshipped under the name Pañcānana, vulgarly abbreviated into *Peñco*, for cure of infantile maladies. A foreign observer, writing over a century ago, noticed his worship in these words: "Punchanunu is worshipped by the lower orders who consider him as the destroyer of children. The image used as his representative is a misshapen stone anointed, painted and placed under the Vutu and other trees".<sup>22</sup> Pañcānana is meditated on as wearing a tiger skin, three-eyed and with sacred thread and is invoked as the lord of diseases. The cult of Pañcānana is popular in parts of lower Bengal where many

18. Risley, *Tribes and Castes of Bengal*, Vol. I, p. 363.

19. *Gazetteer of Bombay Presidency*, Vol. IX, Part 1, 1901, p. 365.

20. William Crooke, *Tribes and Castes of North Western Province and Oudh*, Vol. II, pp. 39, 46.

21. *Ibid.*

22. W. Ward, *History, Literature and Mythology of Hindus*, Introduction, p. XCIII,

shrines of his known as Pañcānana talā are to be found.<sup>23</sup> Offerings are made by village people in case of serious illness in the family to Buro Śiva under which name Śiva is worshipped as a guardian deity of village in many parts of Bengal. At Benares a folk god known as Jvaraharīśvara is worshipped for cure of malaria. The special offerings made to him are *bhāṅg* and sweetmeats. The offering of *bhāṅg* to the god shows that he is regarded as a form of Śiva.<sup>24</sup> Mention may be made here of an old aspect of Śiva which is not much remembered now, namely, the aspect of curer of barrenness or giver of offspring. The Mahābhārata mentions several instances of the worship of Śiva under this aspect, one being that by Kṛṣṇa under the directions of sage Upamanyu, the propagator of the worship of the Liṅga. At the present time forms of the Devī, trees, tombs and in certain cases megalithic monuments are worshipped for the same purpose and objects possessing magical potency are also used.

It may be observed from the references given from the early sacred literature that Rudra-Śiva is given two diametrically opposite attributes, he is both a giver of disease and a healer of disease. These two contradictory strains in his conception continue all along. A very curious outgrowth, it would seem, of his aspect as a giver of disease is Skanda's connection with Kumāras and Mātṛs who are described in the Mahābhārata as the cause of infantile and juvenile diseases.<sup>25</sup> We shall again refer to these strains in Rudra-Śiva's conception when we examine instances of the worship of the Devī as a cure goddess.

In popular worship there does not occur any instance of the worship of Viṣṇu as a cure god. A stray case of the worship of a folk god known as Jvaranārāyaṇa is reported from Khulna (Senhati) for cure of fever.<sup>26</sup> There are in fact only a few instances of local deities being affiliated to Viṣṇu-Kṛṣṇa and these have an agricultural aspect. There is, however, one important folk deity affiliated to Nārāyaṇa whose worship, widely popular in Bengal, may be said to have some connection with cure of disease, averting of evil etc. This is Satya Nārāyaṇa or Satya Pīr, whose cult is known in Bengal, Bihar, the United Provinces etc.

In the pre-epic, epic, and Puranic accounts of the Devī and her

23. *Kriyākāṇḍavāridhi*, published by the Basumati Publishing House, Vol. I, p. 749.

24. Crooke, *Popular Religion and Folklore of Northern India*, 1896, Vol. I, p. 136.

25. *Mahābhārata*, Vana P., Chs. 228, 229.

26. Hunter, *Statistical Account of Bengal*, Vol. II, p. 223.

forms there does not appear to be any reference to her special healing powers. As we turn to her popular worship it is found that under different Puranic names she is worshipped for cure of different diseases, but it is mainly in cases of epidemic outbreaks of cholera and small-pox that her worship is most popular. A number of local deities worshipped for cure in such cases are affiliated to her by the use of composite names and recognised as her forms. There are, again, some folk deities who are regarded as her forms though not explicitly affiliated to her.

Thus *Jagadambā* is worshipped as a small-pox goddess in Patna and south-east Bihar by the Dosadhs. *Mahāmāyā* is also worshipped as a small-pox goddess.<sup>27</sup> In Chatrisgarh *Kālikā-Bhawānī* is the small-pox goddess. She is regarded also a cholera goddess by the Saiqualgars (U.P.), and when cholera rages a goat is sacrificed to her.<sup>28</sup> *Bhawānī* is worshipped by the Kunbis (Poona) for cure in all illness.<sup>29</sup> In Muzaffarnagar *Kālī Devī* is worshipped during an epidemic.<sup>30</sup> *Kālī*, *Mahākālī*, and *Ugra-Kālī* are the different names under which the Devī is worshipped when cholera prevails in South India.<sup>31</sup> *Kālī* or *Bhagavatī* is invoked in times of illness by the Pulayans.<sup>32</sup> Fowls are offered by the Koodans to Bhagavatī in epidemic outbreaks of cholera and small-pox.<sup>33</sup> *Bhadra-Kālī* is worshipped by the Kaniyans in case of similar outbreaks.<sup>34</sup> The following extract from a leading Bengali paper shows that human sacrifice to the Devī for purpose of cure has not altogether disappeared. "A coolie of Nagakhuli tea-garden in Dibrugarh, Assam, was suffering great hardships on account of poverty and his wife and children were suffering from various maladies for several years. One day the coolie had a dream that if he could propitiate the Devī by offering her the sacrifice of a boy these hardships and maladies would disappear. Accordingly, he sacrificed his five-year old nephew to the goddess, buried him, planted a bamboo on the spot and worshipped the Devī. The boy's mother made enquiries about him in the evening and was told by the village chowkidar that the boy had been seen in the company of his uncle. The uncle failed to give satisfactory replies when he was asked about the

27. George A. Grierson, *Bihar Peasant Life*, 1885, pp. 404, 406.

28. Crooke, *Tribes etc.*, Vol. IV, p. 258.

29. *Rgveda*, iv. 25. 16.

30. Crooke, *Popular Religion etc.*, Vol. I, p. 142.

31. Bishop Whitehead, *Village Gods in South India*, p. 32.

32. L. K. Ananta Krishna Iyer, *Cochin Castes and Tribes*, pt. i, p. 113.

33. *Ibid*, p. 136.

34. *Ibid*, p. 223.

whereabouts of the boy. The dead body was discovered after some searches were made. The man was arrested and sent up for trial."<sup>35</sup>

Local goddesses of disease are sometimes affiliated to the Devī by the use of composite names. In Bengal the popular Puranic name of the Devī used for such purposes is *Caṇḍī*. Thus we have *Ulāi-Caṇḍī* who is worshipped in South and Central Bengal as the cholera goddess. "At Birnagar or Ula (24 Parganas) the *Ulāi-Caṇḍī* festival is held in June or on the last day of Baisākh in honour of the *Ulāi-Caṇḍī*, one of the forms of the wife of Śiva, as the goddess of cholera."<sup>36</sup> The goddess is revered also by Moslems who call her *Ula* or *Ola Bibi*. In North Bengal the goddess worshipped in case of an outbreak of cholera is *Rakṣā-Kālī* who is offered pūjā by Brahman priests in a temporary shrine built at cross-ways. At some places *Śmaśāna-Kālī* is worshipped for the same purpose. When a cholera epidemic broke out among the army of coolies working at the construction of the Hardinge Bridge over the Padma at Sara Ghat, Pabna, and the coolies were so panic-stricken that breakdown was feared, the Labour Contractor, with handsome contributions from the European architect in charge, arranged for the worship of *Śmaśāna-Kālī* on a grand scale. In Burdwan *Basana-Caṇḍī* is worshipped as the goddess of cholera and small-pox.<sup>37</sup> We have seen that the Vedic literature prescribes worship of Rudra for averting cattle-disease. It is reported from Sylhet (Assam) that Hindus worship *Ghorā-Caṇḍī* in case of an outbreak of cattle epidemic.<sup>38</sup> The Tharus (Bihar and Upper India) worship *Dhara-Caṇḍī* for the same purpose. She is offered fowls.<sup>39</sup> The worship of two folk goddesses *Abāk Caṇḍī* and *Kalāi-Caṇḍī* is reported from Midnapore. A fair is held in honour of *Kalāi-Caṇḍī* at Bhadutala, two miles from Midnapore. According to our informant these goddesses are worshipped in the hope of recovery from diseases and clay animals are offered to them.<sup>40</sup> *Kakāi-Caṇḍī* has a shrine at a village called Badala in Hughly, Bengal. She is said to be worshipped for cure of jaundice.<sup>41</sup> *Nātāi-Caṇḍī* and

35. A United Press report published in *Ananda Bazar Patrika* a leading Bengali paper published from Calcutta.

36. Hunter, op. cit., Vol. ii, p. 57.

37. Reported by Miss Hemalata Lahiri, Burdwan, Bengal.

38. P. Bhattacharyya Vidyavinode, Folk customs and folklore of Sylhet, *Man in India*, Vol. X, Nos. 2-4, p. 150.

39. Risley, op. cit., Vol. ii, p. 317.

40. Reported by Mr. K. C. Chakravartti, B.L., Midnapore, Bengal.

41. Rajnarain Bose, *Grāmya Upākhyāna* (in Bengali), p. 9.

*Kului-Canḍī* worshipped in parts of Eastern Bengal appear to be folk goddesses occasionally worshipped for cure purposes but without connection with any specific disease. *Aṅgārmālī-Bhawānī* is worshipped by the Dhakars (U.P.) who believe that sunstroke is due to her. She is believed to ride through the sky in her chariot in hot weather.<sup>42</sup>

There are other goddesses whose affiliation is not secured by any such device as the use of composite names. Thus there is *Bahucārjī* whose worship is popular in Gujerat. The goddess is visited by the lame, blind, impotent and childless. "They draw near her temple and remain seated near the sacred pond of Mansarovar touching no food until they fancy that they have heard the goddess promising them the accomplishment of their desires."<sup>43</sup> She is regarded as a form of Bhawānī or the Devī and is worshipped in the Brahmanical form.<sup>44</sup> According to an account of the origin of this deity she is a deified Charan woman who killed herself to protect her honour.<sup>45</sup> *Revalī* (temple at Badali) regarded as a form of the Devī is visited by the lame, blind, paralytic and stammering.<sup>46</sup> The *Mātā* is worshipped as a small-pox goddess by the Dhuniyas (Upper India).<sup>47</sup> The Kalhatis (Poona) worship *Mārāi* as the cholera goddess. She is worshipped also by the Uchilas.<sup>48</sup> *Viśālī Devī* regarded as a form of Durgā is worshipped for the cure of sore eyes.<sup>49</sup> The Kanjars worship *Mahārānī Devī* regarded as a form of the Devī for cure.<sup>50</sup> *Mārī Mātā*, *Mārī-Bhawānī*, or *Mārīśvarī* worshipped among many Hinduised tribes in Northern and Western India and regarded as a form of the Devī is *Mariyāmmā* worshipped on the outbreak of epidemic in the Tamil districts in South India. She is identified with Bhagavati.<sup>51</sup> *Kulumaiāmmā* (Trichinopoly) and *Pollyāmmā*, cholera and small-pox goddesses, are regarded as forms of Kālī.<sup>52</sup> The Chamars and the Muchis (Bihar and Upper India) worship *Julkā Devī* in case of an outbreak of cholera epidemic. A swine is sacrificed to her by

42. Crooke, *Tribes etc.*, Vol. ii, p. 286.

43. Bombay Presidency Gaz., Vol. ix, pt. i, p. 366.

44. *Ibid.*, Vol. vii, p. 609 f.

45. *Rās Mālā*, ii, p. 90.

46. B. P. Gaz., Vol. ix, pt. i, p. 366.

47. Crooke, *op. cit.*, Vol. i, p. 47.

48. B. P. Gaz., Vol. ix, pt. i, pp. 458, 470.

49. Crooke, *op. cit.*, Vol. iii, pp. 81 f.

50. B.P. Gaz., Vol. ix, pt. i, pp. 323, 516; Crooke, *op. cit.*, Vol. iii, p. 145; Vol. iv, p. 74.

51. Iyer, *op. cit.*, p. 164.

52. Whitehead, *op. cit.*, p. 100; Iyer, *op. cit.*, p. 164.



the Chamars. She is worshipped also by the Muchis in Bengal. Risley thinks that she is perhaps identical with Rakṣā-Kālī worshipped in Bengal villages.<sup>53</sup> *Ujālī Mātā* identified with the Devī is worshipped in Muzaffarnagar when children get small-pox or scrofulous neck.<sup>54</sup> At Malaypur in Birbhum a block of stone installed under a banyan tree is worshipped as goddess *Basanta-Bairī* (enemy of small-pox).<sup>55</sup>

It will be observed from the above that the important disease in connection with which the Devī generally in the form of Kālī or local deities affiliated to her is worshipped, is cholera. A few instances of worship being offered on an outbreak of small-pox epidemic occur mainly in South India and some stray cases occur here and there. Other diseases for the cure of which worship is offered are paralysis, lameness, scrofulous neck, sore eyes etc. Two instances of worship for cure of cattle disease are reported from Assam and Bihar. Now Kālī in her different names such as Ugra-Kālī, Rakṣā-Kālī, Bhadra-Kālī etc. and Caṇḍī are demoniacal forms of the Devī. Mārī, according to the *Vāmana Purāṇa*, is also a demoniacal form of hers (*Mārī triśūlena jaghāna cānyān khaṭṭāṅgapātair aparāṁśca kauśikī* etc.).<sup>56</sup> It is these demoniacal or destructive forms that are worshipped for cure of epidemic cholera and other less serious diseases.

There is an exception to the almost universal worship in India of female deities affiliated to the Devī for cure of cholera. This is Harda or Harduar Lala, the cholera god whose worship prevails in the U.P. districts north of the Jumna. He belongs to the class of deified heroes. It may be noted that in Bundelkhand, his native land, Harda is worshipped as a marriage god.<sup>57</sup> In South India where female deities regarded as forms of the Devī are generally worshipped in case of outbreak of cholera there is a male deity Śaṣṭhā receiving worship in the same contingency. He is regarded as a form of Śiva.<sup>58</sup>

We may now turn to the "specialist" cure deities. Though a few cases occur of the worship of forms of the Devī for cure of small-pox, specially in the South, *Śitalā* is the deity pre-eminently worshipped for cure of small-pox from Assam to Baluchistan and from the Himalayas to the Vindhya. The *Skanda Purāṇa* makes her responsible for small-pox, boils, scrofula etc. She is described as a goddess

53. Risley, *op. cit.*, Vol. i, pp. 97, 179.

54. Crooke, *Popular Religion etc.*, Vol. 1, p. 127.

55. Article by S. Chakravartti in *Bhāratavarṣa, Aṣāḍha*, 1347 B.S.

56. *Vāmana Purāṇa*, ch. 52.

57. Crooke, *Popular Religion etc.*, Vol.

i, p. 138.

58. Iyer, *op. cit.*, pp. 313-314.

mounted on an ass, naked, carrying a broomstick and a pitcher and with a winnowing fan on her head etc. These attributes of the goddess and the existence, side by side, of her worship in the Brahmanical and non-Brahmanical forms point to her true origin, namely, that she is a folk goddess who has been Brahmanised. In the non-Brahmanical worship the Hāḍis, Doms, Bhangis etc. forming the lowest castes of Hindus are her hereditary priests. The Mochis offer a pig to her "first of all smearing the animal's snout with red lead and repeating certain incantations after which it is set free, and any one may seize it."<sup>59</sup> Śītalā is said to be the eldest of a band of seven sisters by whom particular diseases are controlled e.g. Śītalā, Maśānī, Mahākālī, Polamde, Āgwanī etc. (U.P.). They are all of a demoniacal nature.<sup>60</sup>

It is generally supposed that Śītalā is derived from Hārītī of the Buddhist texts. Atkinson writes that in the hills Śītalā is represented as a woman dressed in yellow with an infant in arms. The late MM. Haraprasad Sastri wrote, "It is difficult to ascertain whether Hindus have taken Śītalā from the Buddhistic Hārītī or the Buddhists from the Hindu Śītalā. I am inclined to think that Hindus are the borrowers, because they always call her a goddess and a form of Kālī, but the Buddhists call her a yakṣiṇī."<sup>61</sup> The Buddhistic Hārītī, however, has no connection with small-pox. She was a demoness feeding on children but received into grace by the Master.<sup>61a</sup> Her story occurs in the Vinaya Piṭaka of the Sarvāstivāda School preserved in the Chinese translation.<sup>62</sup> In the Tibetan account Hārītī is "the queen of Pretas with the fiery mouth" who fed her 500 children on living children. "Food is offered to Hārītī and her sons before it is taken by the Lamaist Church. . . Each Lama daily leaves on his plate a handful of food to these demons and these leavings are ceremoniously gathered and thrown outside the monastery gate. . . . In the Japanese version of this legend the Buddha told Hārītī that she was a king's daughter and performed many meritorious acts, but because she had not kept

59. Risley, *op. cit.*, Vol. II, p. 97.

60. Crooke, *Introduction to the Popular Religion and Folklore of Northern India*, 1894, p. 80.

61. Atkinson, *Himalayan Gazetteer*, ii, p. 300.

61a. H. P. Sastri, *Discovery of Living Buddhism in Bengal*, p. 20.

62. J. N. Banerji, *Indian Historical Quarterly*, Vol. XIV, No. 1, 1938, p. 103.

the precepts she had become a demon."<sup>63</sup> "The cult of Hārītī had a long history of its own both in and outside India. We learn from the Si-Yu-Ki of Hiuen Tsang how her cult was acclimatised in ancient Gandhara . . . and how her worship migrated outside India to eastern China (through Chinese Turkestan and Kashmir), Korea and Japan."<sup>64</sup> What is however of importance to notice is that Hārītī is not the only one of her class; *yakṣiṇī Kālī*, *rakṣiṇī Kuṇḍalā* etc. mentioned in the Buddhist texts were semi-divine ogresses devouring children, belonging to the same type as Hārītī. Rākṣasī Jarā from whom Jarāsandha derived his name<sup>65</sup> is the Brahmanical counter-part of the Buddhistic Hārītī. As Mr. J. N. Banerji points out,<sup>66</sup> there are more affinities between Jyeṣṭhā, a South Indian folk goddess whose worship is now almost extinct, and Śītālā, than between Hārītī and Śītālā. One fundamental objection to the view that Śītālā is derived from Hārītī is that in art and in texts Hārītī is always represented as carrying a child in her arms, and as a mother of many children. This representation can only mean that through the grace of the Lord, Hārītī the yakṣiṇī, a destroyer of children, became a protectress of children. Through the development of this aspect in her character Hārītī allies herself to Ṣaṣṭhī the goddess of child birth and protectress of children who is also represented as carrying a child in her arms (*kroḍe vinyastaputram*).

Without pursuing the question further it may be stated that the conception of Śītālā, her cult as it is practised in many parts of the country and the absence of any mention of her in the Purāṇas—she is mentioned only in the late Skanda Purāṇa and Pichila Tantra—all point to her rise from a folk goddess of demoniacal type.

The universal desire among all classes of Hindus, to which reference has been made, to affiliate all sorts of female folk deities to the Devī is manifest in the case of Śītālā also. "Tilothu village in Sasaram sub-division is situated 5 miles east of a gorge by which the Tutrahi river leaves the hills. This spot is sacred to Śītālā. The chief object of interest is an image . . . which is said to have been placed here by the Cheros. It represents a many-armed female striking down a man as he springs from the neck of a buffalo."<sup>67</sup> The Dhan-

63. L. A. Waddell, *Buddhism of Tibet or Lamaism* 1895, p. 99 and Note.

64. J. N. Banerji, *op. cit.*, p. 104. 65. *Mahābhārata, Sabhā P.*; ch. 18, vv. 1-6.

66. Banerji, *op. cit.*, pp. 105, 106; T. A. G. Rao, *Hindu Iconography*, Pt. II, p. 395.

67. *Imperial Gazetteer, Provincial Series, Bengal*, Vol. II, p. 75.

gars of Mirzapur affiliate Śītalā to the Devī by giving her the composite name Śītalā-Bhawānī.<sup>68</sup>

Gujarat has two local deities worshipped for cure of small-pox, e.g. *Kakabalia* worshipped by the Gujarati Bhils and Dharampur Varlis,<sup>69</sup> and *Said Kākā* worshipped in case of epidemic small-pox. He is supposed to live in a stone or stone bust said to be that of Ghaṭotkaca, son of Bhīma. His carrier is a donkey.<sup>70</sup>

Śītalā has a few other functions besides curing small-pox. Among the Lodhis in Poona the girl's mother worships Śītalā on the marriage day.<sup>71</sup> The shrine of the goddess at Raewala in Dehradun is visited by women to procure children.<sup>72</sup>

The presiding deity of itch, boils etc. has a fairly wide-spread cult in Bengal. A distinction is, however, made between the itch-god and the boil-god in some parts of Bengal. In lower and Western Bengal the itch-god is *Gheṇṭu* who is purely a folk-deity without any pretension to respectability. The boil-god is *Ghaṇṭākarna* who is recognised as a Gaṇa of Śiva in the Śiva Purāṇa. He is represented by a ghaṭa or earthen pot. He is invoked as follows :—

Ghaṇṭākarna mahāvīra sarvavyādhivināśanam  
Viṣphoṭakabhayaprāpte rakṣa rakṣa mahābala.<sup>73</sup>

The earthen pot used is generally an old blackened pot used to fry rice which is ceremonially broken with a stick after worship. This ceremonial splitting of a pot is an instance of sympathetic magic. The worship of Ghaṇṭākarna prevails also in the hills where his character as an attendant of Śiva is better recognised and he is given the position of a gate-keeper of temples. The cult of Gheṇṭu which prevails in Lower and Western Bengal is confined to boys. A mound of earth shaped into a cone decked with wild gheṇṭu flowers and put into a piece of sheath of plantain tree with an earthen lamp burning before it, represents the deity. Clay images of elephant, horse etc. are put by the side of the mound. A number of boys carrying the deity on the shoulder visit houses in the village singing songs in honour of Gheṇṭu and collecting gifts of rice, money etc. The songs are to the effect : "From wherever Gheṇṭu passes by itch flees away. Come Gheṇṭu riding an elephant." The songs meant for the householders who are asked to make gifts to the god are not bene-

68. Crooke, *Tribes etc.*, vol. ii, p. 269.

69. B. P. Gaz., Vol. ix, Pt. 1, pp. 292, 329.

70. *Ibid.*, p. 329.

71. *Ibid.*, vol. xviii, Part 1, p. 399.

72. Crooke, *Popular Religion etc.*, Vol. 1, p. 127.

73. Śabdakalpadrūma, vol. ii, p. 278.

dictory,—a threat is held out to those that are disposed to give little that the god will give them seven daughters, a threat likely to prove quite effective on fathers in Bengal. With the things collected the young devotees give themselves a feast.

In parts of North Bengal the itch deity is a goddess called *Basan-varī*. She is represented by a plantain tree. A piece of new cloth dyed in turmeric is wrapped round it, a nose-ring and ear-rings are stuck into the sheath and a pith crown is tied to the top leaf of the tree. Eyes and face of the goddess are drawn with soot mixed with oil and vermilion and round marks are put on different parts of the tree with lime to represent itches. The worship is offered by little boys and girls. Plantain, rice, sugar and wild flowers (*banyā*, *kātāgar*, *kāyādimā* etc.) are offered. The goddess is immersed in a tank on the last day of Caitra after being formally worshipped by a priest. Songs sung in chorus by the young devotees are intended to pander to the vanity of the deity,—“My father is bad, *Vasanvarī* is good, my brother is bad, *Vasanvarī* is good” and so on. In parts of Central Bengal the itch goddess is called *Viṭākumārī*. She is worshipped in the month of Māgha. Around a cone-shaped mound of earth are arranged four flat-topped mounds of earth. Worship is offered by little boys and girls with wild flowers (*bhantī*, *śimula* etc. not offered to other deities). The mantra is a song sung in chorus to the following effect :—“Go away this time o goddess, with itches and boils, come back with shell bracelets and vermilion” etc.

*Chonḍu* is regarded as an itch deity by the Kols. No details about his worship are available.

There is no doubt that “specialist” folk cure deities of this type and many others worshipped for cure are known to Brahmanical Hindus, Hinduised tribes and tribes not Hinduised, but we have not been able to collect detailed information regarding these. To show how wide-spread the cult of cure deities is mention is made below of the names of a few :

- 1) Acheri is a god worshipped in the U.P. for cure of cold and goitre.
- 2) Alopi is worshipped in case of epidemic outbreaks in the U.P.
- 3) Ai Thansi is a goddess worshipped in Kathiawar for cure of cough.
- 4-5) Berai and Mārākī (Gujarat and the U.P.) are worshipped in epidemic outbreaks.
- 6) Birahi is a minor small-pox deity worshipped in the U.P.
- 7-9) Bangara is the Kol deity of fever, Gohem of cholera and Nigra of indigestion,

- 10) Bhane Ghane is the goddess of cattle disease worshipped by the Marias (C.P.).
- 11) The goddess Fulkai is worshipped in Gujerat for cure of barrenness.
- 12) Gosawan is the god of cattle disease among the Goalas in Bihar.
- 13) Hāḍakai is the goddess who cures hydrophobia (Gujerat).
- 14) Juśrī Mātā cures cattle pox in Kathiawar.
- 15) Kara Sarna is the god of cattle pox worshipped by the Kharias (Chota Nagpur).
- 16) Kokkalāmmā is a South Indian goddess who cures cough.
- 17) Mutua Deo cures fevers in the U.P.
- 18) Nagar Sen is an U.P. disease godling among the Dhobis.
- 19) Rāhu is worshipped by the Dosadhs (Bihar) for cure of fever and other diseases.
- 20) Susime is the goddess curing blindness and lameness among the Garos.
- 21) Sukhajāmmā is worshipped for cure of measles in the South.
- 22) Sunkalāmmā is worshipped for the same purpose in Bellary.
- 23) Tarara-Rabenga is worshipped by the Garos for cure of Kala-Azar etc.
- 24) Untai (Gujerat) cures whooping cough.<sup>74</sup>

The foregoing is more or less in the nature of a catalogue of different deities worshipped for cure. There will be found in it some references to the representations of some of these deities and methods of their propitiation. Representations of deities sometimes vary according to the status of the deities and the status of their devotees. Thus the old deities Śiva and the Devī in her Puranic forms when worshipped for cure by Brahmanical Hindus are represented in their Puranic forms. When they are worshipped by Hinduised tribes low in the social scale the representations are sometimes the same but sometimes the iconic representation of forms of the Devī gives place to aniconic representation by blocks or slabs of stone. Thus a stone block is worshipped as Bhagavatī, Kālī, Mahākālī etc. in the South. At the same time non-Brahmanical elements are introduced in the

74. The above list has been compiled from various sources e.g. *Tribes and Castes of North-Western Province and Oudh* and *Popular Religion and Folklore of Northern India* by W. Crooke; *Village gods in South India* by Bishop Whitehead; *Religious Life and Thought in India* by Monier Williams; *Tribes and Castes of Bengal* by H. Risley; *The Garos* by Playfair; *Descriptive Ethnology of Bengal* by Dalton; *Bihar Peasant Life* by Grierson; *The Cochin Tribes and Castes* by L. K. Anantha Krishna Iyer etc.

methods of propitiation, that is to say, the priest is a non-Brahman and non-orthodox sacrifices are offered. When they are worshipped by tribes open to Hindu influence but not Hinduised the stone *līṅga* of Śiva is replaced by stone slabs or pebbles or wooden posts and the Devī is represented similarly by stone slabs or blocks or mounds of earth. The method of propitiation consists of offer of unclean animals like pig, birds like fowl, libations of spirits through a tribal priest. In the case of local or folk deities affiliated to Mahādeva and the Devī or her Puranic form Kālī, Brahmanical Hindus do not generally change either the representation or the form of worship. Thus Ulāi-Canḍī, Kakāi-Canḍī etc. are represented as Kālī and worshipped in the Brahmanical form, Peñco or Pañcānana is often represented and always worshipped as Śiva. It is not much different in the case of independent folk deities like Śītālā ; but in her case both Brahmanical and non-Brahmanical systems of worship prevail side by side and iconic representation appears also outside the Brahmanical society. It may be pointed out in this connection that mere transference from the iconic to the aniconic representation may not indicate much if it is unaccompanied by other significant changes, because both iconic and aniconic representation of deities are worshipped by Brahmanical Hindus and even in the case of a widely worshipped goddess like the great Durgā, the gorgeous image is freely replaced by a *ghaṭa* or an earthen water-pot filled with water and with a cocoanut and mango twigs at the top. At Vindhya-chal in the famous shrine of Vindhya-vāsinī, the goddess, a form of the Devī, is represented by a stone slab.

In the case of folk deities without Puranic affiliations, there is no uniformity of ideas and a study of the differences in representations will be of great ethnological interest ; but for the purpose of such study a mass of details has to be collected and examined. In the case of tribal cure deities the representation is not different from other tribal deities and does not call for any remark.

With regard to the method of worship the principle is generally the same though varying in details. Whether the priest is a Brahman or a casteman among Hinduised tribes or a tribesman among tribes and the sacrifices are orthodox or non-orthodox, the underlying idea is to propitiate the deity and to induce him to grant the required relief. A striking departure from the usual mode is hurling of abuse at the goddess Bhagavatī and desecration of her shrine reported by Mr. Anantha Krishna Iyer.<sup>75</sup> This is the method of coercion often practised by spirit-doctors in exorcism.

75. Iyer, *op. cit.*, p. 238.

Two of the diseases for which direct intervention of the divine agency is sought are cholera and small-pox epidemics which affect large masses of men creating havoc and spreading panic. Others affect individuals, such as lameness, blindness, sunstroke, sore throat, hydrophobia, fever, paralysis, itches etc., and therefore cause no panic in a community. Direct intervention is also sought for cure of barrenness, removal of impotence etc. It is to be noted that with the exception of Śiva and local deities affiliated to him the deities invoked for cure are nearly all female. That cure deities should be conceived of as female is undoubtedly significant and should, perhaps, be attributed to a general tendency to mother-goddess worship among the devotees. It should again be noted that the general tendency is to affiliate local or folk female cure goddesses to the Devī, or more precisely, to her Puranic form Kālī, despite the fact that there is little Puranic evidence of healing powers being attributed to her. Most of the female cure deities have a fearful or demoniacal aspect. To take the case of Śitalā. Her conception with all the uncouth details is not at all pleasing, rather it is likely to inspire dread and create aversion. Different forms of Kālī, Mārī, Marīśvarī, Pollyāmmā etc. have all a demoniacal aspect. This aspect cannot be regarded as a survival of the original condition of these deities as demonesses or evil spirits; the evidence in the sacred literature regarding the origin of Kālī does not justify such inference. It is possible that this aspect owes its origin to a recognition of these deities or their prototype Kālī as a giver as also a curer of diseases. Here is a case of an outbreak of plague being attributed to the wrath of the Devī: "An outbreak of plague at Craganore (Cochin State) is attributed by villagers to the wrath of the goddess Bhagavathī. A temple at Craganore, dedicated to the goddess, is visited annually by thousands of pilgrims. During pilgrimage time, a Moplah entrusted a small bundle to a pilgrim to be delivered at the temple as an offering. The pilgrim, opening the bundle, found that it contained hair, fowl's feathers and other articles. Annoyed he threw the bundle into the temple and called upon the goddess to retaliate against the Moplah's sacrilegious deed.

"The plague epidemic is believed to have originated in the house at Craganore of the Moplah who sent the bundle.

"The people have now decided to propitiate the goddess."  
(From *Statesman* of 27. 4. 35.)

The method of propitiating these deities is the common method of prayer and offer of sacrifices, it has nothing in common with exorcism or spirit-doctoring except perhaps in a solitary instance referred



to above in which coercion in the form of abuse is used. The cults of most of the cure deities have thus two elements as their basis, the element of fear in the power of evil and the element of faith in the benevolence of these deities who inspire dread.

These two apparently contradictory elements characterise the old cult of Rudra-Śiva, as has been noted, and the later cult of the Devī. The Devī has a dreadful lefthand aspect and a beneficent righthand aspect. Kālī is a lefthand form of hers. She is a destroyer, but a destroyer of the evil. When she is pleased she removes all afflictions (*rogān aśeṣān apahaṃsi tuṣṭā, Caṇḍī II. 28*). Attention has been drawn to the tendency to affiliate local or folk deities to the Devī. This tendency illustrates in its unconscious working a general desire to elevate deities of humble origin to a higher rank through such affiliation. There is also another tendency noticeable among Hinduised tribes and tribal peoples to degrade deities with Puranic affiliations to the status of casteless folk or tribal deities. Both these tendencies illustrate in their working how folk and tribal religions react to the pressure of Brahmanical Hinduism.

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## AN IMPORTANT ASPECT OF PATAÑJALIAN TECHNIQUE OF INTERPRETATION

By K. MADHAVA KRISHNA SARMA

The use of a good many Paribhāṣās and Nyāyas (some of which are of his own making) not only leads Patañjali to reject a large number of Vārtikas, but also enables him to widen the scope of the Aṣṭādhyāyī. A few among these are illustrated below.

### (1) व्याख्यानतो विशेषप्रतिपत्तिर्न हि सन्देहादलक्षणम् ।

When Pāṇini uses an ambiguous term its precise meaning is to be ascertained from authoritative interpretation. Pāṇini's grammar which as a Śāstra should teach definite things, does not, because of some ambiguous terms, become Alakṣaṇa, i.e. unauthoritative. From authoritative interpretation we learn that the Pratyāhāra 'Aṇ' is formed with 'n' of the first Sūtra of the Akṣarasamāmnāya except in P. 1.1. 69.<sup>1</sup> Pāṇini who instead of using different sounds occasions ambiguity by employing the same letter in both अइउण् and लण् whenever 'Aṇ' and 'In' are used, intends, according to Patañjali, to teach this important maxim. Patañjali makes use of this Paribhāṣā in various ways. In fact the interpretations which he places upon a good many Sūtras and which enable him to reject a number of Vārtikas can be explained by reference to this Paribhāṣā. A few illustrations are given below.<sup>2</sup>

(a) P. 1. 4. 9. ( विप्रतिषेधे परं कार्यम् ) says that when there is opposition between two Sūtras both of equal force, the one that holds good is that which is read later.

This is the first interpretation. In certain cases which require the application of the Sūtra read earlier, Kātyāyana who does not go beyond this interpretation has to add Vārtikas to say that in those

1. See Patañjali on this Sūtra.

2. For other instances see the Mahābhāṣya on 1. 3. 10, 1. 3. 11, 3. 2. 57-3. 2. 58, and 7. 1. 13. In all these places Patañjali points out that an authoritative interpretation removes all doubts :

सन्देहमात्रमेतद्वदति । सर्वसन्देहेषु चेदमुपतिष्ठते-व्याख्यानतो विशेषप्रतिपत्तिः..... ।

particular instances the Pūrva holds good. To Patañjali 'para' means not only 'read later' but also 'Iṣṭa', i.e. that which is demanded by the occasion. All the Vārttikas which Kātyāyana intends as exceptions to P. 1. 4. 9 are rejected by Patañjali following this latter interpretation. On P. 1. 4. 2. (V. 7) Patañjali says : अस्तीष्टवाची परशब्दः । तद्यथा—परं धाम गत इति । For instances see the Mahābhāṣya on P. 4. 1. 85, 5. 1.2, 6.1.12, 6.1.158, and 7.1.1.

(b) *Interpretation of the particle 'ca'.*

The interpretation of the particle 'ca' as demanded by the occasion often leads Patañjali to refute the Vārttikas. In P. 2.1.48 (पाठे-समितादयश्च) and 2.1.72 (मयूरव्यंसकादयश्च) he takes 'ca' as standing for the meaning of 'eva'; but in P. 2.2.14 (कर्मणि च) he takes it as conveying the sense of 'iti'. All this exemplifies the above maxim.

(c) *The meanings of 'anta'.*

Patañjali says that this word has two meanings, viz. 'Avayava' and 'Samīpa' and that in 1.2.10 (हलन्ताच्च) Pāṇini uses it in the latter sense i.e. 'Samīpa.' Thus he is able to answer an objection raised against this Sūtra by some of his predecessors who take it here in the former sense.<sup>3</sup>

(d) *The use of bahulam, anyatarasyām, etc.*

Pāṇini's grammar is Sarvavedapāriṣada; as such it cannot always cling to strictly uniform methods and devices. It has to make use of such words as 'bahulam', 'anyatarasyām', 'vā', etc. in order to account for all irregularities.

अवश्यं खल्वप्यस्माभिरिदं वक्तव्यं बहुलमन्यतरस्यामुभयथा एकेषामिति । सर्वविदपारिषदं हीदं शास्त्रम् । तत्र नैकः पन्था शक्य आस्थानुम् ।—so says Patañjali on P. 2.1. 58 and 6.3.14.

The interpretation of 'bahulam', 'anyatarasyām', etc. as required by the occasion enables Patañjali<sup>4</sup> to account for all irregularities. Kātyāyana who on both these Sūtras says बहुलवचनस्याकृत्स्नत्वात्, takes 'bahula' in its original sense which is 'mostly'.

*Explanation of Vedic anomalies.*

The irregularities in the use of case-affixes, personal endings, Para-

3. See the Mahābhāṣya on the Sūtra.

4. See Patañjali on P. 2. 1. 58 and 6. 3. 14.

smaipada and Ātmanepada terminations, etc. are so numerous in the Vedic language that it is not possible for a few rules to cover them all. Pāṇini treats them only in a cursory manner. Patañjali, according to whom Pāṇini's grammar is Sarvavedapāriṣada (2.1.58) finds in Pāṇini a justification for all these anomalies. He splits व्यत्ययो बहुलम् (P. 3.1.85) into two Sūtras : 'Vyatyayah' and 'Bahulam'. The former, in accordance with the context, enjoins the interchangeability of Vikaraṇas in certain Vedic instances. The latter, i.e. Bahulam, is not bound by the context and means that all rules take effect diversely in the Vedic language. All Anomalies are thus explained by 'bahulam'.

सुप्तिडुपग्रहलिङ्गनराणां कालहलच्स्वरकर्त्तृ यडां च ।

व्यत्ययमिच्छति शास्त्रकृद्देशं सोऽपि च सिद्ध्यति बाहुलकेन ॥<sup>5</sup>

As has already been pointed out, Pāṇini uses 'bahulam' in its original sense<sup>6</sup> viz. 'often'. Devices like the above which are intended to cover anomalies, give it later a very liberal sense, viz. 'diversely'. Hence the later commentators say :

कचित्प्रवृत्तिः कचिदप्रवृत्तिः कचिद्विभाषा कचिदन्यदेव ।

विधेर्विधानं बहुधा समीक्ष्य चतुर्विधं बाहुलकं वदन्ति ।<sup>7</sup>

( e ) यथा न दोषस्तथास्तु ।

When two alternatives present themselves to us and the Śāstra (Pāṇini) does not expressly say which we should choose, we (as intelligent human beings) must adopt only that which is faultless. If a rule is capable of two interpretations, we have to choose that one which does not land us in any difficulty. Patañjali reiterates this axiom very often in the Mahābhāṣya and rejects<sup>8</sup> a good number of Vārttikas.

( f ) अधिकारा अनुवर्तेरन् ।

Refuting the Vārttika वदः सुप्यनुपसर्गग्रहणम् (P. 3.1.106, V. I)

5. By Upagraha are meant the Ātmanepada and Parasmaipada terminations. Yaṅ here is a Pratyāhāra with the ya of P. 3.1.22 and the 'ṇ' of 3.1.86. Examples are found in the Mahābhāṣya on P. 3.1.85.

See also Patañjali on 1.4.9 and 2.1.32.

6. Kātyāyana also says : बहुलवचनस्यावृत्तत्वात् . See also P. 2.1.58 and 6.3.14.

7. See Prakriyāprasāda of Viṭṭhala, Part II, p. 599 (Bombay Prakṛt and Sans. Series ed.).

8. See Patañjali on 1.4.57, 4.1.85, 2.4.12 etc.

which states that 'anupasarga' must be added to this Sūtra Patañjali says :

न वक्तव्यम् । अनुपसर्ग इति वर्तते । एवं तर्ह्यन्वाचष्टेऽनुपसर्ग इति वर्तते इति । नैतदन्वाख्येयमधिकारा अनुवर्तन्ते इति । एष एव न्यायो यदुताधिकारा अनुवर्तेरिति ।

What Patañjali exactly means is this that instead of saying that Adhikāras do follow, it must be said that Adhikāras may follow as and when they are required. The Adhikāras can thus be taken over to any distant Sūtra even without connecting them with the intervening Sūtras. The application<sup>9</sup> of the Adhikārasūtras is thus liberalised by Patañjali to a great extent.

**अधिकारो नाम त्रिप्रकारः ।**

Patañjali gives a wider sense to 'adhikāra' and recognizes three classes of it as follows :

(1) That which like a lamp stands in a corner of the Śāstra and illumines the whole of it. By this Patañjali means Paribhāṣās. The Mahābhāṣya on P. 2.1.1 makes this very clear :

**परिभाषा पुनरेकदेशस्था सती सर्वं शास्त्रमभिज्वलयति प्रदीपवत् ।<sup>10</sup>**

(2) That which is dragged by 'ca' from one Sūtra to another as a log of wood is drawn by a chain or rope.

(3) That in which the necessity of repeating the same word in every Sūtra with which it has to be connected, is not felt. This is the usual Adhikāra which is connected uniformly with the desired number of Sūtras following it.

Though 'śaṣaḥ' in P. 6. 4. 34 (शास इदङ्हलोः) stands for Avayava-ṣaṣṭhī, it can be taken over to the next one and interpreted as Sthāna-ṣaṣṭhī. Its repetition in the next rule is thus avoided. This Adhikāra falls into the third category.

This threefold definition of the Adhikāras enlarges their scope and they are used as required<sup>12</sup> by the occasion. Patañjali thus rejects the Vārttika विशिष्टा वा षष्ठी स्थानेयोगा । Says he :

9. Vide also Patañjali on 6.1.20 and 6.1.17.

10. Cf. also Patañjali on 2.1.34 : अथवा मण्डूकगतयोऽधिकाराः । तद्यथा-मण्डूका उत्प्लुत्योत्प्लुत्य गच्छन्ति तद्वदधिकाराः ॥

11. See Vol. I, p. 359, (Kielhorn's edition).

See also Patañjali on 8.3.37 (V. 2) and 5.1.1.

12. See also Patañjali on P. 8.3.37 (V. 2) and 5.1.1.

तद्यदेश पक्षोऽधिकारः प्रतियोगं तस्यानिर्देशार्थ इति । तदा हि यदेवाद  
पुरस्तादवयवषष्ठ्यर्थमेतदुत्तरत्वानुवृत्तं सत्स्थानेयोगार्थं भविष्यति ।

(P. 1. 1. 49, V.4)

(2) सत्यपि संभवे बाधनं भवति ।

According to Kātyāyana an Apavāda (special rule) supersedes an Utsarga (general rule) when there is a conflict between the two, i.e. when there is no possibility of both taking effect together. According to Patañjali an Apavāda supersedes and Utsarga even when there is no conflict between them, i.e. even when there would be room for the operation of the Apavāda after the taking effect of the Utsarga. Patañjali quotes the Takrakaṇḍīya maxim in support of his view :

सत्यपि संभवे बाधनं भवति । तद्यथा—दधि ब्राह्मणेभ्यो दीयतां तक्रं  
कोण्डिन्यायेति सत्यपि संभवे दधिदानस्य तक्रदानं निवर्तकं भवति..... ॥

(Patañjali on P. 6. 1. 2, V. 4).

When it is said 'Let curds be given to Brāhmaṇas, but buttermilk to Kaṇḍīya', Kaṇḍīya is given only buttermilk, although it is possible to give him both curds and buttermilk, the one after or before the other. The following is an illustration :—

एकाचो द्वे प्रथमस्य (P. 6.1.1): In a root containing a single vowel the first syllable is reduplicated.

अजादेर्द्वितीयस्य (P. 6.1.2): In a root beginning with a vowel and consisting of more than one syllable, the second syllable is reduplicated. This is an exception to the first rule.

In the case of a root which begins with a vowel, the first rule is superseded by the second, although it is possible for the latter to take effect after the operation of the former.<sup>13</sup> In instances like aṭi-ṭiṣati, aśiṣiṣati, etc. there is a possibility of both taking effect ( अस्ति च संभवो यदुभयं स्यात् ) ।

13. See Kaiyaṭa on 2.3.1 and the Paribhāṣenduṣekhara, Paribhāṣās 52 and 58. Kaiyaṭa says :

विरोधे बाधकारणं न विशेषविधानमेव । वार्तिककारस्य चेदं दर्शनम् । भाष्यकारस्तु विरोधाभावेऽपि विशेष-विधानमात्रेणैव बाधकत्वमन्यत्रावोचत् । तक्रदानं च दधिदानस्य विरोधाभावेऽपि लोके बाधकं दृश्यते ॥

14. E.g. aṭiṭiṣati, aśiṣiṣati, etc., desiderative forms of aṭ, aś, etc., which begin with a vowel. When the desiderative affix san and the augment iṭ are added to them they cease to be monosyllabic.

Patañjali says :

यदप्युच्यतेऽसति खल्वपि संभवे बाधनं भवति अस्ति च संभवो यदुभयं  
स्यादिति नैतदस्ति । सत्यपि संभवे बाधनं भवति । तद्यथा दधि ब्राह्मणेभ्यो दीयतां  
तक्रं कौण्डिन्यायेति । सत्यपि दधिदानस्य संभवे तक्रदानं निवर्तकं भवति ।  
एवमिहापि सत्यपि संभवे प्रथमद्विर्वचनस्य द्वितीयद्विर्वचनं बाधियते ॥

(P.6.1.2, V.4)

For other examples see the Mahābhāṣya on P.6.2.1, 6.4.163, 7.1.72 and 7.4.61. In all these instances Patañjali adopts this Takra-kaundinya maxim and makes it the main item of his difference with Kātyāyana.

### (3) *The Sūtrasāṭaka maxim.*

Both Kātyāyana and Patañjali are agreed on the Nityatva of Śabdas. The acceptance of this doctrine helps us to overcome the Anyonyāśraya (interdependence when either of the two things cannot be known apart from the other) in many cases. For instance, when Pāṇini says वृद्धिरदैच् we are faced with an Anyonyāśraya ; the term Vṛddhi can be introduced only if the sounds ā, ai and au to which it applies, already exist ; on the other hand, the existence of these sounds becomes cognisable only when they are taught through the use of the term Vṛddhi. To solve the riddle it is accepted that Śabdas are Nityas. In other words, it is the Saṃjñās which are Anityas<sup>15</sup> and which are newly taught here and not the Śabdas which are Nityas and to which these Saṃjñās apply.

But<sup>16</sup> a difficulty is felt in instances like इय्यणः संप्रसारणम् (P.1.1.45) in which certain sounds receive a Saṃjñā only when they replace their respective Sthānins. For instance, Ik receives the Saṃprasāraṇa-saṃjñā only when it replaces Yaṇ. When we say that Ik receives the Saṃprasāraṇasaṃjñā when it replaces Yaṇ, the statement seems to be absurd because at this stage Ik has yet to come into existence by replacing<sup>17</sup> Yaṇ. Ik must be there if it is to be made the Uddeśya

15. Cf. Patañjali on P. 2.1.51 (V. 4) : न हि संज्ञा नित्या ।

16. Cf. Patañjali on P. 1.1.45 (V. 3) : नेदं तुल्यमन्यैस्तिरेतराश्रयैः । न हि तत्र किञ्चिदुच्यतेऽस्य स्थाने य आकारैकारौकारा भाव्यन्ते ते वृद्धिसंज्ञा भवन्तीति ॥

17. The replacement of one sound by another sins against the doctrine of immutability of Śabdas. Sūtras like इको यणचि (6.1.77) etc. have therefore to

of the Saṁprasāraṇasaṁjñā. Kātyāyana has no solution for this. But Patañjali who intelligently recognizes the difference between Saṁjñās of this type and those of the type of Vṛddhi introduces the Sūtraśāṭaka maxim to solve the difficulty mentioned above. What this maxim means is this : When one asks the weaver to weave a piece of cloth out of some yarn, one is indulging in what is a *prima facie* absurdity. The use of the word cloth presupposes the existence of a piece ; so if it is a piece of cloth that is referred to, weaving is both unnecessary and impossible ; if what is to be woven is yarn, then the piece of cloth need not be mentioned at all. The real explanation of this is that the word cloth is used in a prospective (Bhāvi) application ; it is used rather to refer to the finished product which is non-existent when the weaver is given the instruction.

#### (4) व्यपदेशिवदेकस्मिन् ।

*Patañjali widens the scope of its application.*

This maxim is very frequently used by the Pāṇinīyas. It is favoured by both Kātyāyana and Patañjali. Kātyāyana<sup>18</sup> uses it to mean that a part is treated as a whole. If a dog loses its tail, it does not cease to be a dog : it does not become a different animal. In his

be interpreted thus : When there is occasion (Prasakti) for the use of Ik, etc. Yaṇ, etc. must be used.

Cf. सर्वे सर्वपदादेशा दाक्षीपुत्रस्य पाणिनेः ।

एकदेशविकारे हि नित्यत्वं नोपपद्यते ॥

So there is no actual replacement but only the use of इक्, etc. when there is occasion for that of Yaṇ, etc. It is really the Prasaṅga that is Anitya and not the Śabda concerned. The immutability of Śabdas does not solve the riddle of Saṁprasāraṇasaṁjñā because Ik becomes Saṁprasāraṇa only after it is used in a case in which there was Prasaṅga for Yaṇ and not before. In Sūtras like व्यङ्गः संप्रसारणं पुत्रपत्योस्तत्सुखे (P. 6. 1. 13) in which it is said that Saṁprasāraṇa must be used in those instances where there is a Prasaṅga for Yaṇ, this term is used in a prospective application.

18. See P. 6.1.1 (V. 2) : एकवर्णेषु व्यपदेशिवद्वचनात् ।

Even one vowel is treated as an Ekāc (Bahuvrīhi) meaning a Samudāya or an Avayavin of which an Ac or a vowel is a part, e.g. iyāya, the Liṭ form, in which the root 'i' (to go) is reduplicated (एकाचो द्वे प्रथमस्य), being treated as an Ekāc.



Bhāṣya on the Vārttika लक्ष्यलक्षणे व्याकरणम्<sup>19</sup> which means that 'Vyākaraṇa' stands for the totality of both Lakṣya and Lakṣaṇa, Patañjali says that the principle of Vypadeśivadbhāva justifies the use 'व्याकरणस्य सूत्रम्'।

The difference between this and the other usual instances,<sup>20</sup> though very subtle, is nevertheless very important. In all other instances of Vypadeśivadbhāva the wholeness of a thing is superimposed on its part and the part is consequently treated as a whole. But in this case the same<sup>21</sup> thing is spoken of both as an Avayavin and an Avayava. The possessive case always indicates the relation of two actually different things. Kaiyaṭa<sup>22</sup> gives another example, viz. राहोः शिरः<sup>23</sup>।

Patañjali thus widens the scope of the application of this principle by using it in an instance in which the same thing is spoken of both as an Avayavin and an Avayava.

(5) एकान्ता अनुबन्धाः and अनेकान्ता अनुबन्धाः।

*Kātyāyana gives both but Patañjali accepts only the former.*

Under P. I.3.9. Kātyāyana and Patañjali give the Paribhāṣā एकान्ता अनुबन्धाः and अनेकान्ता अनुबन्धाः, i.e. as the Anubandhas are or are not part of that to which they are attached. Kātyāyana on assuming that Anubandhas do not form part of the terms to which they are attached but merely stand beside them, is confronted with a difficulty in rules like P. 4.2.80 ( वुञ्छणकठजिलसेनिरदञ्जय..... ) etc. in which 'ṇ', on account of its equal proximity to both the following and preceding affixes, would be connected with both and consequently the operation which results from an affix having the indicatory letter 'ṇ' would take place both in the case of 'ch' and in that of 'k'. The Vārttika-kāra gives this solution for the difficulty : सिद्धं तु व्यवसितपाठात्। Patañjali explains : सिद्धमेतत्। कथम्? व्यवसितपाठः कर्तव्यः। वुञ् छण...। What Kātyāyana means is that they (the affixes referred to above) must be read distinctly, i.e. without blending the indicatory letter of one

19. Paspasā 14.

20. As that given in foot-note no. 18 in which 'i' is treated as an Ekāc.

21. Vyākaraṇa and Sūtra mean the same thing. See Patañjali on the

Vārttika लक्ष्यलक्षणे व्याकरणम्।

22. See the Mahābhāṣya, Pradīpa and Uddyōta on the above Vārttika.

23. According to mythology, Rāhu is Dragon's Head; so both refer to the same thing.

affix with the other and confusing their functions. But Patañjali does not admit the necessity for this Vyavasitapāṭha. He thinks that the difficulty can be overcome through right interpretation. Says he :

सन्देहमात्रमेतद्भवति । सर्वसन्देहेषु चेदमुपतिष्ठते—व्याख्यानतो विशेषप्रतिपत्तिर्न हि सन्देहादलक्षणमिति व्याख्यास्यामः ।<sup>24</sup>

Though Kātyāyana gives both the views, Patañjali accepts only the former which he thinks is more reasonable<sup>25</sup> than the latter.

Patañjali : उभयमिदमनुबन्धेषूक्तमेकान्ता अनेकान्ता इति । किमत्र न्याय्यम् । एकान्ता इत्येव न्याय्यम् ।<sup>26</sup>

(6) सूत्रे लिङ्गवचनमतन्त्रम् ।

In Sūtra 1. 2.53 ( तदशिष्यं संज्ञाप्रमाणत्वात् ) Pāṇini himself points out that the gender and number of a word depend on usage and that no hard and fast rule can be laid down by grammar with regard to them. The same latitude can with all justification be extended to the words of his own Sūtras which are placed by him in genders and numbers having no grammatical importance. But as regards those of these latter Kātyāyana is sometimes very particular as in his critical Vārttikas on P. 3.3.18 (given below) and sometimes not as in his Vārttika on P. 4.1.92 : तद्वितार्थनिर्देशे लिङ्गवचनमप्रमाणं तस्याविवक्षितत्वात् ।

Patañjali lays down this definite maxim and holds to it throughout.

What this maxim—सूत्रे लिङ्गवचनमतन्त्रम्—means is this :—

We can have neither grain without chaff nor words without gender and number. When a word used to state a rule is placed by Pāṇini in a particular number and gender, these last have no grammatical importance ; the word can as well be in any other number or gender. The acceptance of this axiom leads Patañjali to reject Kātyāyana in some places. The following is an instance.

P. 3.3.18. भावे ।

Kātyāyana : सर्वलिङ्गो निर्देशः ।

Patañjali : भावे सर्वलिङ्गो निर्देशः कर्तव्यः । भूतौ भवने भाव इति ।

किं प्रयोजनम् । सर्वलिङ्गे भावे एते प्रत्यया यथा स्युरिति । किं पुनः कारणं न सिद्धति ।

24. See Patañjali on P. 1.3.9, V. 14.

25. See Patañjali on P. 1.3.9, V. 15 and 3.1.94, V. 6.

26. See P. 1.3.9, V. 15.

पुंलिङ्गेनायं निर्देशः क्रियते एकवचनान्तेन च । तेन पुंलिङ्ग एव भाव एकवचने चैते प्रत्ययाः स्युः । स्त्रीनपुंसकयोर्द्विवचनबहुवचनयोश्च न स्युः ।

नात् निर्देशस्तन्त्रम् । कथं पुनरन्तेनैव च नाम निर्देशः क्रियते तच्चातन्त्रं स्यात् ॥ तत्कारी च भावांस्तदुद्वेषी च । नान्तरियकत्वाद्वात् पुंलिङ्गेन निर्देशः क्रियते एकवचनेन च । अवश्यं कयाचिद्विभक्त्या केनचिच्च लिङ्गेन निर्देशः कर्तव्यः । तद्यथा—ऋश्चिदाभ्राथी शलिकलापं सतुषं सपलालमाहरति नान्तरियकत्वात् ।

### (7) संनियोगशिष्टानामन्यतरापय उभयोरप्यभावः ।

When one of the two things taught together disappears, then the other follows suit. When we say that this work must be done by Yajñadatta and Devadatta, we mean that it must be done together by both. The one does not do it in the absence of the other. This is another Paribhāṣā which Patañjali uses to make up the deficiencies in the Sūtras. According to him this is suggested by P. 6.4.153 :—

विल्वकादिभ्यश्छस्य लुक् <sup>27</sup> ।

Pāṇini's object in having the augmented form 'bilvaka' in this Sūtra is to teach that 'cha' alone shall be elided and not the augment kuk : otherwise the augment 'kuk' would also be elided on the strength of this maxim. 'Bilva' becomes 'bilvaka' when the augment is added to it according to P. 4.2.91. नडादीनां कुक्च would have been quite sufficient. The force of the admission of the augmented form is that it alone shall be elided and not the augment added together with it. Under P. 4.1.36 Kātyāyana points out the necessity of stating that Āgamas and Ādeśas taught together with some Strīpratyaayas follow suit when the latter are dropped. Patañjali thinks that such a statement is not necessary as it is a matter that may be learnt from everyday life. Says he : तत्तर्हि वक्तव्यम् ? न वक्तव्यम् । संनियोगशिष्टानामन्यतरापय उभयोरप्यभावः । तद्यथा—देवदत्तयज्ञदत्ताभ्यामिदं कर्तव्यम् । देवदत्तापये यज्ञदत्तोऽपि न करोति । <sup>28</sup>

### (8) शब्दान्तरस्य प्राप्नुवन्विधिरनित्यो भवति ।

A rule is Anitya if the wordform to which it applies differs from what it was before another simultaneously applying rule took effect. This is another important maxim introduced by Patañjali. In the formation of 'nyaviśata', P. 6.4.71 which enjoins the augment 'at' and P. 3.1.77 which enjoins the Vikaraṇa 'śa' apply simultaneously. If

27. Vide the Mahābhāṣya on 2.2.6, 2.1.36, 2.2.29, 2.4.12 and 5.4.16.

28. See also Patañjali on P. 5.1.64 (Vol. II, p. 357).

Vikaraṇa is added first to the root the augment would be prefixed to viśa and not to viś, i.e., to that which ends with the Vikaraṇa ; otherwise it would be added only to viś ; hence P. 6.4.71 is said to be Anitya.

This Paribhāṣā enables Patañjali to regulate<sup>29</sup> the application of some Sūtras and leads him to reject some Vārtikas. Instances are found in the Mahābhāṣya on P.1.3.60 (V.3), 2.4.85 (V.3), etc.

(9) प्रत्येकं वाक्यपरिसमाप्तिः and समुदाये वाक्यपरिसमाप्तिः ।

*Patañjali champions the latter and accounts for certain compounds.*

Kātyāyana says that the addition of 'saha' to P. 2.1.4 सह सुपा is to indicate that the term Samāsa applies to a compound (a group of words) as a whole and not to individual parts thereof. According to him, in the absence of this word in this Sūtra, the term Samāsa would, like the term Vṛddhi taught in वृद्धिरादैच् P.1.1.1, apply to the individual parts of a compound. The Vārtikakāra thus champions प्रत्येकं वाक्यपरिसमाप्तिः (individual application) in his following Vārtika on P. 2.1.4 :

सहवचनं पृथगसमासार्थम् ।

Patañjali explains :

सह ग्रहणं क्रियते सहभूतयोः समाससंज्ञा यथास्यादेकैकस्य माभूदिति । कथं

च कृत्वैकैकस्य वृद्धिसंज्ञा प्राप्नोति । प्रत्येकं वाक्यपरिसमाप्तिर्दृष्टेति ।

Patañjali does not agree with Kātyāyana. He points out to the latter that in certain cases rules have also collective application, e.g. गर्गाः शतं दण्ड्यन्ताम् । When it is ordered by a king that the Gargas shall be fined one hundred coins what is meant is that the total fine to be collected from all the Gargas must be one hundred and not that each Garga should be made to pay a fine of one hundred coins. The number of the coins is more important than the number of Gargas. An unimportant thing is repeated as many times as required by the number of important things to which it is applied but not *vice versa*.<sup>30</sup>

अर्थिनश्च राजानो हिरण्येन भवन्ति । न च प्रत्येकं दण्डयन्ति ।<sup>31</sup>

29. In accordance with this Paribhāṣā.

30. This Nyāya is well-known among Mīmāṃsakas.

31. See also Patañjali on P. 1.1.1 (V. 12).

After criticising Kātyāyana in this way Patañjali shows how a better purpose can be served by 'saha' in the Sūtra. He splits the Sūtra into two : 'Saha' and 'Supā.' The former, i.e. Saha, means that Sup is compounded with any word that is Samartha. This<sup>32</sup> covers all such compounds in which one member is not Sup (but is Samartha, i.e. connected in sense) and for which Pāṇini has no rules to account for, e.g., 'punarutsyūta' 'punarniṣkṛta,' etc. Patañjali thus extends the scope of the Samāśas.

The vastness of this subject makes it impossible to exhaust all its aspects within the compass of a paper like this. My chief intention here is rather to stress how by introducing several Nyāyas and Paribhāṣās Patañjali frees the interpretation of the Aṣṭādhyāyī from all its narrowness and liberalises and broad-bases it. Patañjali throws overboard a number of Vārttikas<sup>33</sup> *not by choice but from necessity*. Patañjali is not attempting any cheap heterodoxy. His rejection of the Vārttikas is incidental to the task he shoulders of widening the Pāṇinian interpretation, and is no part of any wanton rebellion against the achieved conclusions of the past.

Kātyāyana's differences with Pāṇini and Patañjali's differences with Kātyāyana are dictated by purely historical and academic reasons ; neither of them intends to carp at his predecessor or to indulge in craft-compliment.

There is an appearance of opposition between Kātyāyana and Patañjali ; but it is only an appearance and the opposition is nothing more than a difference. Both Kātyāyana and Patañjali attempt to span the gulf between themselves and their predecessors, but in two different ways. Unlike Patañjali Kātyāyana never tries to do more than to enable Pāṇini's work to cover the changes which took place in the language after Pāṇini's and before his own time ; Kātyāyana never attains Patañjali's width of gaze, never tries to make Pāṇini explain the possible changes in what must have been to him the future of the language. Kātyāyana's method is tentative and static ; in broadening the scope of the Aṣṭādhyāyī he emends and supplements it. Patañjali's way is more organic. An addition or an emendation is with him only a last resort. He has recourse to it only if after exploring all the aspects of Pāṇini's meaning, he has found that a certain change is not provided for in Pāṇini. Patañjali not only illumines the darkest corners of meaning in Pāṇini and exploits the

32. See the Mahābhāṣya on this Sūtra.

33. See my paper 'Kātyāyana', Poona Orientalist, Vol. V, Nos. 2 and 3, pp. 126 et seq.

possibilities of his work to the maximum extent, but confers an unassailable fixity on Pāṇini's authority by establishing his text under certain protective principles (mostly drawn from the text, i.e. the Aṣṭādhyāyī itself) which are so comprehensive as to make Pāṇini's work include in itself the explanations for the changes in the past, present and future of the language. Patañjali has made Pāṇini valid and active for all times and has put an irrevocable stop to the method of which Kātyāyana was very often guilty—of emending and supplementing interminably. The charge of unwarranted critical rancour against Kātyāyana has often been laid at Patañjali's doors. The justification for the rancour perhaps lies in the fact that it was dictated by an anxiety to make Pāṇini's text enlarged and safe. In all Sanskrit no author owes more to his commentator than Pāṇini does to Patañjali.

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## LOLIMBARĀJA AND HIS WORKS

By P. K. GODE

(continued from p. 333)

### (3) RATNAKALĀ CARITRA

Only two MSS. of the *Ratnakalā Caritra* have been recorded by Aufrecht. The MS. in the India Office Library<sup>18</sup> is described as "a dramatic poem of 84 verses (mainly Prākṛit) by Lolimbarāja." This MS. is dated *Samvat* 1708 = A.D. 1651. The interlocutors in this dramatic poem are *Lolimmarāja*, *Ratnakalā* a *Sakhī*, a *budhī*(?), *Daū-lata* and *Ātmārāma*. Bühler records a Ms.<sup>19</sup> of the *Ratnakalā Caritra* but he has included it in the works on Medicine.

18. Vide, p. 1491 of Vol. VII of *Ind. Office Mss. Catalogue* (1904) Ms. No. 2079c. Verse 1 at the beginning refers to the author :—

“जयति धरणिपीठे लाल्लोलिम्मराजः” ।

Verse 83 at the end also contains a reference to the poet :—

“लोलिम्मराजरचितैर्विविधैर्विचित्रै-

वैदग्ध्यवद्विरहरत्नकलाचरित्रैः” ।

The specimens of the Prākṛit as recorded in the catalogue may be given here :—

“यडिघडिमुजपासों गोष्ठित्या ( ? ) ची करावों

सकलभुवनभित्तो तो विचित्रि लिहावो ( ? ) ।

बहु बहु उतकण्ठा जोड जाइ लिजाणा

क्षणभरि तुम्हि आणा लाल्लोलिम्मराजः ॥२॥”

last verse —“अतिरत्नकलाचरित्रजाले

सकलां हि कविच्या मनासि आले ( ? ) ।

अमृताहुत गोडजाले

पठ्ठां वे पुठ्ठिसि ( 1 ) भक्तिभावैः ॥८४॥”

19. *Sanskrit Mss. from Gujrat etc.*, Fasc. IV, Bombay, 1873, p. 234. The MS. belonged to Nilakanṭha Rāṇchoḍ of Ahmedabad.



As the poem appears to have been composed in Marāṭhī its author may have been a resident of Junnar. He may also be identical with the रत्नकलारमणकवि<sup>20</sup> referred to in the verses 96 and 97 which appear to me to be an interpolation substituted in the Harivilāsa in place of the verses giving the genealogy of the patron of the author with some particulars, which yet remain to be identified.

Lolimbarāja, the author of the *Ratnakalācaritra* referred to above appears to be identical with Lolimbarāja about whom the following particulars are recorded in Marāṭhī sources :—

In the History of Marāṭhī Literature called the *Mahārāṣṭra Sārasvata*<sup>21</sup> by V. L. Bhave some account of poets of the “16th Century” is recorded. This account furnishes the following particulars about Lolimbarāja :—

Lolimbarāja is known as the author of a commentary in Marāṭhī on the 10th skandha of the *Bhāgavatapurāṇa*. He was a resident of Junnar.<sup>22</sup> His surname was Jōshī and his descendants are still living in Junnar province. He wrote a Sanskrit work on medicine called the *Vaidyajīvana*. Many songs attributed to him are found in literature and in some old MSS. He was a well-known saint being included

20. The *Vaidyajīvana* contains references to रत्नकला as follows :—

“अबले कृत कामबले चलहक् कमले कमजातनुरत्नकले” I. 74.

“अपि रत्नकले कलानिधे कुशले कोकिलकोमलखरे” I-79.

“अथि रत्नकले नीलनलिनछन्दने क्षणे” III. 12.

“रत्नकला कृते मूलं ग्वाश्याः etc. III. 43.

“अथि रत्नकले कुहमाकलहंसकलहंसकलत्रसमानगते” IV. 46.

The Commentator Harinātha (A.D. 1674) explains the name “रत्नकले” as रत्नजातिश्रेष्ठे” (fol. 30 of Ms. No. 913 of 1887-91). This explanation as also his explanation of सप्तशृङ्ग as हिमालय (fol. 4) is indicative of the fact that he (as early as A.D. 1674) was not aware of the biographical particulars about the Deccani Lolimbarāja. In verse 22 of *Vaidyajīvana* a medical preparation is named after रत्नकला ( “चूर्णं रत्नकलाभिधं गुडपयोयुक्तं” etc ).

21. 2nd Edition, Poona, 1919, Published by B.I.S. Mandal, pp. 167 ff.

22. Raghunātha in his Commentary on the *Harivilāsa* calls लोलिम्ब as resident Junnaar ( “जुन्नरपत्तनाधिवासितः लोलिम्बनामा कविः ) ।

among the saints like उद्धवचिद्घन, रङ्गनाथ and शिवुराम. Devadāsa<sup>23</sup> also refers to him. The account of his early life is very interesting. He was the son of Divākaraḥṭṭa.<sup>24</sup> In his younger days he was of a gay temperament and given to enjoyments. From a work called लोलिव-राजआख्यान it appears that he married a beautiful young Muhammedan girl whom he named रत्नकला<sup>25</sup>. He was extremely attached to her. After her death his outlook on life changed. He then became a devotee of सतशृङ्गभवानी<sup>26</sup> and after some penance came to be

23. Bhavē quotes the following reference to Lolimbarāja in Devadāsa's work :—

“लोलिवराजे करितांस्वप्न । मस्तकीहून काढिलें जीवन ।  
भक्तवत्सल तूं भगवान । महिमा कोण वर्णू शके ॥”

Mr. Bhavē mentions two Marathi authors of the name देवदास, one of these two was the pupil of saint Rāmadāsa while the other was “चैतन्यशिष्य” (Mah. Sārasvatā, p. 285).

24. In the Colophons of Mss. of *Vaidyājñāna* Lolimbarāja is called दिवाकरसूनु । This parentage is supported by the following verse towards the close of Vilāsa V of the *Vaidyājñāna* (Ms. No. 1093 of 1886-92, folio 33<sup>a</sup>):—

“आयुर्वेदचोविचारसमये धन्यन्तरिः केवलं  
सीमा गानविदां दिवाकरसुधांबोधि त्रियामापतिः ।  
उक्तं सः कविताकृतां मतिमतां भूयस्समाभूषणं  
कान्तोक्त्या कृतं वैद्यजीवनमिदं लोलिम्वराजः कविः ॥२४॥”

The following editions of the *Vaidyājñāna* have been published :—(1) Bombay, 1874 ; (2) Edition with *Dīpikā* of Sukhānanda and *Bhāṣyaṇṭi* of Mihiracandra (Sanskrit and Hindi, Venkateshwar Press, Bombay 1920).

25. Mr. Bhavē quotes the following verses from लोलिवराज आख्यान (p. 169)—

“ज्यानी कीर्ति जगत्रईं प्रगटली मन्दाकिनीचेपरी ।  
जो एके घटिकेंत शंभर नवीं पद्यो विनोदे करी ॥  
ज्याला ‘कविपातशाह’ पदवी विद्वजनी दीधली ।  
तो हा रत्नकले । तुला विनवितो लोलिवराजः कवी ॥”

26. Raghunātha in his Commentary on the *Hari-vilāsa* refers to this goddess

very much respected by the people. His work "Vaidyajīvana" was composed in Śaka 1555 (=A.D. 1633). — Mr. Bhavé then describes a MS. of *Vaidyajīvana* with him as follows :—

All the verses in this MS<sup>27</sup> are in Marāṭhī. The work is narrated to his beloved. The work ends with the line :— इति श्रीलोलिंबराजप्रण्य वैद्यजावन संपूर्ण ।

One लयंबकराज<sup>28</sup> is often mentioned in this work. Can we surmise if लयंबक was the name of the author himself ?

Lolimbarāja is referred to by many authors.

#### (4) *Camatkāracintāmaṇi*

The Bikaner MS. of this work has been described by Rajendralal Mitra.<sup>29</sup> He describes it as a work "on practice of medicine. By Lolimbarāja, Son of Divākara Paṇḍita". The parentage of the author

and our author's devotion to her as follows :— 'सत्य ( स ) शृङ्गनिवासिनी भगवती लीलावतारोऽभवत्' (v. 4 at beginning of MS. No. 182 of 1902-07).

The *Vaidyajīvana* refers to सप्तशृङ्ग in verse 2 at the beginning as follows :—

“रत्नं वामदशां दशां सुखकरं श्री सप्तशृङ्गासदं  
स्रष्टाष्टादशबाहुतेद्वगवतो भर्गस्य भाग्यं भजेत् ।  
यद्वक्त्रेन मया घटस्तनि घटी मध्ये समुत्पाद्यते  
पयानां शतमङ्गनाधरसुधास्पर्शाविधानोत्थुरं ॥२॥”

Vide p. 433 of Pangarkar's *History of Marathi Literature*, II (1935). सप्तशृङ्ग is situated to the north of Nasik. The image of the goddess at this place is 12 ft. high, with 18 arms.

27. So far we know only the Sanskrit work *Vaidyajīvana*. The Marāṭhī *Vaidyajīvana* referred to by Mr. Bhavé may be a Marāṭhī translation of the Sanskrit original by the author himself or by रघुनाथ the Commentator of the *Harivilāsa* who mentions त्र्यम्बकराज as his गुरु in this *Harivilāsaṭīkā* while Mr. Bhavé informs us that the Marāṭhī *Vaidyajīvana* contains numerous references to one त्र्यम्बकराज ।

28. Raghunātha in his Commentary on the *Harivilāsa* refers to one त्र्यम्बकराज as his guru (see MS. No. 182 of 1902-07).

29. Catal. of Bikaner MSS., Calcutta, 1880, p. 635.

given in the Colophon<sup>30</sup> of this MS. is identical with that given in the MS. of the *Vaidyājīvana*<sup>31</sup>. Burnell<sup>32</sup> describes a MS. of the *Camatkāra-cintamani*, but he does not say anything about the authorship of the work, perhaps owing to the incomplete nature of the MS.

(5) *Vaidyāvataṃsa*

Burnell<sup>33</sup> describes a MS. of this work and states that it is a work by Lolimbarāja. He does not say anything about the parentage of this author.

The above work described by Burnell is identical with the work<sup>34</sup>

30. This Colophon reads as follows :—

“इति श्रीमद्दिवाकरपण्डितसूनुलाललोलिम्बर्राजविरचिते चमत्कारचिन्तामणौ  
नरप्रदिक्रो नाम समाप्तः ॥”

The name “लाललोलिम्बर्राज” given in the above Colophon is exactly identical with “लाललोलिम्बर्राज” in the following line of the रत्नकलाचरित्र (I.O. MS.):—

“क्षणभरि तुम्ह आणा लाललोलिम्बर्राजः”

31. In verse 3 of *Vaidyājīvana*, Lolimbarāja refers to दिवाकर as follows :—

“दिवाकरप्रसादेन रोग्यारोग्यं समाहृया ।

समासेन वयं कूर्म वाक्यं सदैवजीवनम् ॥३॥”

32. Tanjore MSS. Part I, London, 1879.—“a rather absurd work on the cure of diseases, beginning with fever and coughs by some pedant whose name is not given.” “Wants end ; recent.”

33. Ibid, p. 67<sup>a</sup>—“*Vaidyāvataṃsa*, brief description of the properties of articles of food, commencing with fruits and ending with meats and preparations of milk by Lolimbarāja.” Begins :— “अनुकृतमरकतवर्णा शोभितकर्णाकदम्बकुसुमेन..... कविकुलमुल्लतानो लाललोलिम्बर्राजः” ।

“Recent. The abstract in red is mostly in Mahratta.”

According to लोलिम्बर्राज आख्यान referred to by Br. Bhavé Lolimbarāja was given the title कविपातशाह ( ज्याला कविपातशाह पदवी विद्वज्जनौ दीधली ). Compare this statement with the above line from *Vaidyāvataṃsa* viz. “कविकुलमुल्लतानो लाललोलिम्बर्राजः” ।

34. The MS. begins :—

“अथ वैद्यावतंस लिख्यते ।

अनुकृतमरकतवर्णा शोभितकर्णाकदम्बकुसुमेन ।

नखमुखमुखरितवीणा मध्ये क्षीणा शिवाशिवं कुर्यात् ॥१॥

*Vaidyāvataṁsa* at the B. O. R. Institute, viz. No. 601 of 1899-1915. This MS. is dated Śaka 1724 = A.D. 1802. The work contains 155 stanzas in all, out of which 7 are devoted to the description and properties of the tobacco plant तमाखू. These stanzas bear numbers 56 to 62 and are followed by the statement that they have been taken from some other work<sup>35</sup>.

The name of the work has, however, not been indicated in the MS. These verses appear to me to be an interpolation for the reason that the description of the तमाखू plant as found recorded in them pre-supposes the plantation<sup>36</sup> of tobacco in India about which no defi-

यत्प्रसिद्धमिह वर्तते फलं शाकमन्यदपि तन्निरूप्यते ।

अप्रसिद्धकथनं तु निष्फलं ग्रन्थविस्तरभयाच्च लिख्यते ॥२॥

The MS. ends :—

“वाग्भटस्य मतमस्ति समस्तं

सुश्रुतस्य चरकस्य च किञ्चित् ।

तद्वदत्रितनयस्य विचित्रं

वाग्बिलासरचना मम तावत् ॥१५३॥

अधराद्विकृतर्विबा जितशशिर्विबा मुखप्रभया ।

गमनाविरलविलंबा विपुलनितंबा शिवाशिवं कुर्यात् ॥१५४॥

समस्तपृथ्वीपतिपूजनीयो । दिगंगनाश्लिष्टशःशरीरः ।

गुणिप्रियं ग्रन्थममुत्तमानं । लोलिबराजः कविपातशाहः ॥१५५॥

शके १७२४ दुन्दुभी नाम संवत्सरे फाल्गुनशुद्धद्वादशां मन्दवासरे ग्रन्थसमाप्तिमगमत्” ।

35. Vide folio 7 of MS. No. 601 of 1899-1915—

“धूमाख्यो धूमशृङ्गश्च.....श्लेष्माणं च विनश्यति ॥६२॥

इति तमाखूनाम गुणांश्च ग्रन्थातरात्संगृहीतं” ।

36. Vide article on tobacco in *Hobson-Jobson*, 1903, p. 925. *About A.D.* 1604-05.—“In Bijapur I had found some tobacco. Never having seen the like in India I brought some with me and prepared a handsome pipe of jewel work. ....His Majesty (Akbar) was enjoying himself after receiving my presents .....his eye fell upon the tray with the pipe and its appurtenances: he expressed great surprise and examined the tobacco etc.” In the beginning the tobacco was imported into India and was considered an article of curiosity.

nite evidence for the period 1600 to 1625 A.D. or so has been available, though references to its importation into India have been recorded. Aśad Beg (died 1626) on a mission from Akbar to Bijapur about A.D. 1603 saw tobacco for the first time. In A.D. 1617 Emperor Jahangir forbade its use as it had very bad effect on the health of many people. In 1660 Tavernier speaks of its growing in large quantities near Barhanpur.<sup>37</sup> The third MS. of the *Vaidyāvatamsa* as recorded in the Ujjain MSS<sup>38</sup> Catalogue is incomplete.

#### (6) *Vaidyājīvana*

I am not aware of the authority on which Mr. Bhavé<sup>39</sup> made his statement that the *Vaidyājīvana* was composed in A.D. 1633 (śaka 1555). Prof. Velankar states that Bühler<sup>40</sup> records a MS. of the *Vaidyājīvana* which is dated *Saivvat* 1664 (=A.D. 1608). If this date of MS. is correct it conflicts with the above date of composition of the *Vaidyājīvana* given by Mr. Bhavé, viz. A.D. 1633<sup>41</sup>. Harinātha's commentary<sup>42</sup> on the *Vaidyājīvana* was composed in *Saivvat* 1730=A.D. 1674. We may, therefore, safely put about A.D. 1650 as one terminus to the date of Lolimbarāja.

Though MSS of all the commentaries on the *Vaidyājīvana* are not available to me for examination, I may record here the following dates gathered from the MSS of the work in the Govt. MSS Library at the B. O. R. Institute.

A gold tobacco-box was presented by the King of Siam in A.D. 1622 to Mr. Richard Fursland, "the President of the English nation" at Jaccatra (vide p. 297 of the *Journal of the Siam Society*, August, 1938).

37. Vide p. 165 of *Bombay Gazetteer* (Khandesh), Vol. XII.

38. *List of Ujjain MSS.*, 1936, p. 50.

39. *Mahārāṣṭra Sārasvata*, p. 170.

40. *Gujarat MSS.*, Fasc. IV, (1873) p. 241.

41. Cf. *Bodleian MSS. Cata.* by Winternitz and Keith, Vol. II, Oxford 1905, p. 112—MS. No. 1092 (1) of वैद्यजीवन, "The date is uncertain ; A.D. 1633 according to Sinh Jee but a MS. of 1608 appears to exist, Jolly, *Medicin*, p. 2." The text of *Vaidyājīvana* with Harinātha's Commentary was printed at Benares in 1868.

42. See Velankar's *Cata. of BBRAS. MSS.*, Vol. I; 1925, p. 68—MS. No. 199.—The Chronogram for the date of composition of the Commentary is

"विक्रमाब्दगणनाखं व हिसस्रेन्दु" *Saivvat* 1730. The MS. was copied at Akbarābād in *Saivvat* 1884=A.D., 1828.

| Manuscript                          | No. | Collection | Saṁvat | Śaka | A.D. |
|-------------------------------------|-----|------------|--------|------|------|
| <i>Vaidyājīvana</i> (=V J)          | 374 | 1882-83    | 1848   | .... | 1792 |
| <i>VJ</i> with Comm. of Rudrabhaṭṭa | 463 | 1895-98    | 1927   | .... | 1871 |
| <i>VJ</i> with Harinātha's Comm.    | 462 | —Do—       | 1920   | .... | 1864 |
| -Do-                                | 913 | 1887-91    | 1890   | 1755 | 1834 |
| <i>VJ</i> with Rudrabhaṭṭa's Comm.  | 353 | 1879-80    | 1843   | .... | 1787 |
| <i>VJ</i> with Harinātha's Comm.    | 635 | 1895-1902  | 1868   | .... | 1812 |
| <i>VJ</i> with Rudrabhaṭṭa's Comm.  | 178 | A 1882-83  | 1822   | 1687 | 1766 |

It will be seen from the above table that the oldest dated MS of the *VJ* at the B. O. R. Institute is dated A.D. 1766, but this date of MS. is of no use in our chronology of Lolimbarāja's works. In the *Catalogue of Ujjain MSS.* a MS<sup>43</sup> of the *VJ* with Rudrabhaṭṭa's Commentary dated Śaka 1728 (=A.D. 1806) has been recorded.

Kielhorn<sup>44</sup> records two dated MSS. of the *VJ*; one is dated Saṁvat 1810=A.D. 1754 while the other of the commentary of Jñānadeva or Dāmodara is dated Saṁvat 1669=A.D. 1613. If this date of a MS. of *VJ*, viz. A.D. 1613 is correct it supports the date A.D. 1608 of a MS. of the text of the *VJ*, recorded by Bühler. The cumulative effect of these two dates would enable us to push back the date of Lolimbarāja before A.D. 1600<sup>45</sup>. This conclusion based on the actual dates of MSS. makes it impossible for me to believe in the accuracy of the statement of Mr. Pangarkar that Lolimbarāja flourished between A.D. 1578 and 1648.

The evidence recorded so far about Lolimbarāja's works leads me to divide it in two sections : (1) Evidence about Lolimbarāja, the author of the poem *Harivilāsa* and (2) Evidence about Lolimbarāja, the

43. *Cata. of Ujjain MSS.*, 1936, p. 50.

44. *C. P. MSS.*, Nagpur, 1874, p. 221—MS. No. 74 वैद्यजीवन सटीकम् —Saṁvat 1810 and MS. 75—वैद्यजीवनटीका of Jñānadeva or Dāmodara—Saṁvat 1669.

45. Mr. Pangarkar (in his *History of Marathi Literature*, Vol. II, (1935) pp. 603-4) repeats the date of composition of *Vaidyājīvana* viz. Śaka 1555 (=A.D. 1633) given by Mr. Bhavé. He further states that Lolimbarāja's Chronology lies between Śaka 1500 and Śaka 1570 i.e. Between A.D. 1578 to 1648 a period of about 60 years. According to Mr. Pangarkar Ratnakalā was the daughter of the Yavana Subhedār of Junnar.

author of Vaidyajīvana and other works. The details of this evidence may be best represented as follows :—

Lolimbarāja I.

- (1) Author of *Harivilāsakāvya* (= *HK.*).
- (2) Composed *HK* in A.D. 1583. The verse recording the Chronogram for this date is found in two MSS. of the *HK*, one of them being copied in A.D. 1622.
- (3) In the *HK* the author refers to him, only as 'लोलिबराज कविनायक' in the concluding verse of every *Sarga* in which he also states that he composed the poem *HK* by order of king हरि.
- (4) MSS. of *HK* are dated as follows :—  
A.D. 1622—No. 204 of 1879-80  
A.D. 1624—No. 78 of 1871-72.
- (5) Except the name Lolimbarāja the *HK* gives no information about the author. Verses 96 and 97 referring to the poet as रत्नकरारमण are spurious.
- (6) Verses 96 and 97 at the end of the printed edition of the *HK* are spurious as they are not found in any of the 8 MSS. of the *HK* examined by me. On the contrary the verses recording the genealogy of the patron of our author are supported by the following MSS. :—  
(i) Ms. referred to in No. 468 of 1884-87.  
(ii) No. 377 of 1884-87 which records the date of composition, viz. A.D. 1583.  
(iii) MS. referred to by the Editor of the *Kāvyamālā* Edition of the *HK* in the footnote at the end of the poem.  
(iv) Tanjore MS. No. 3858 contains the verse "श्रीमान् ल्हामरसो etc."

Lolimbarāja II.

- (1) Author of the following works :—  
(i) *Vaidyajīvana*=*VJ.*  
(ii) *Vaidyāvataṁsa*=*VT.*  
(iii) *Camatkāracintāmaṇi*=*CC*  
(iv) *Ratnakalācarita*=*RC* and other Marāṭhī works.
- (2) The following Chronology of the MSS. of this author is available :—  
A.D. 1608—MS. of *VJ.*  
A.D. 1613—MS. of *VJ*-Comm. of Dāmodara.  
A.D. 1651—MS. of *RC* (IO. MS.)  
A.D. 1674—Harinātha composed Comm. on *VJ.*  
A.D. 1766—MS. of Rudrabhaṭṭa's Comm. on *VJ.*
- (3) The parentage of this author is given in the *CC.* as दिवाकरपण्डितसूनु (see Colophon) and in the *VJ* (in the text and in the Colophons).
- (4) No reference to the patron king is found in the works *VJ*, *VT*, *CC*, *RC*. This omission stands in vivid contrast with the name of king Hari referred to many times in the *HK* of Lolimbarāja I.
- (5) Ratnakalā, supposed to be the wife of this author is referred to in the *RC* which bears her name in the *VJ* in which she is addressed by name in some verses and in the Marāṭhī work लोलिबराज आख्यान, in which our author is called कविपातशाह.  
In the *VT* the author calls himself कविकुलसुल्तान as also कविपातशाह (v. 155).
- (6) The reference to the place सप्तशृङ्ग is found in verse 2 of *VJ* (this may be the सप्तशृङ्ग to the north of



(7) There is no evidence in the *HK* to prove that its author belonged to the Mahārāṣṭra. On the contrary, the patron king of this author hailed from a place called गयाचलगिरि. This king's genealogy is as follows :— हरि—ल्हामरस-रविपण्डित ( m. येल्हांबिका ) son हरि (patron of the author of the *HK*). This line belonged to मौनिमार्गवकुल which is called a द्विजकुल.

Nasik). This author belonged to the Mahārāṣṭra. The Commentator Harinātha (A.D. 1674) having no knowledge of the सप्तशृङ्ग hill near Nasik wrongly explains the expression “सप्तशृङ्गास्पदं” as “सप्त शृङ्गे हिमालये एव आस्पदं स्थानं यस्य तत्” (fol. 4 of MS. 913 of 1887-31). Rudrabhaṭṭa explains the expression as “सप्तशृङ्गाख्यः पर्वतः etc.” (fol. 3 of MS. No. 463 of 1895-98).

I hope the evidence recorded in this paper about Lolimbarāja and his works will enable scholars<sup>46</sup> to clarify some of the issues raised in this study but which still require more evidence to enable us to arrive at definite decisions. \*I have tried to put together whatever information I could get from the sources so far available to me with a view to help a more detailed examination of the several works of Lolimbarāja than what I have been able to carry out in the preparation of this tentative study.

46. Since this paper was drafted Dr. V. Raghavan of the Catalogus Catalogorum office, Madras University, has sent to me the information recorded by his office regarding Lolimbarāja and his works. Some of this information may be recorded here :—

- (1) Edition of *Harivilāsa-Kāvya* (Pandit H.)—Here the editor makes Lolimbarāja a contemporary of Bhoja.
- (2) There are numerous MSS. of the *Harivilāsa*, in none of which we find the chronogram (=A.D. 1583) found in the B.O.R. Institute—2 MSS.
- (3) In the *Vaidyajiṇana* Lolimba describes himself as proficient in Vaidyaka, Kāvya and Music. No MS. of a music work of Lolimba has yet been found.
- (4) In the South Indian MSS. of the *Vaidyajiṇana* (Tric. Cata. No. 2221, 2371, 2814 (a) the work is called “*Sadvaidyajiṇana*.”
- (5) In Madras MS. No. 2371 referred to above the colophon says that Lolimba was the son of king of Muñja of Vidarbha.
- (6) Rudrabhaṭṭa, the Commentator on the *Vaidyajiṇana*, was the son of Koneribhaṭṭa, who was doctor to one Khān Khān and Rudra himself wrote under Mīrkhān. If the identity of these two Khānas is proved we may have some external datum for Lolimba's date limits.—I am thankful to Dr. Raghavan for the information sent by him.

## KANIŠKA'S ERA

By PRABODH CHANDRA SENGUPTA

The eras used in the Kharoṣṭhī inscriptions are still a matter for controversy. Dr. Sten Konow in his celebrated edition of them in the *Corpus Inscriptionum Indicarum*, Vol. II. pp. lxxxii—lxxxiii, has collected together 36 instances of dates from these inscriptions and has divided them into two groups, A and B. The dates used in group A belong to an earlier era, while those in group B use the era or the regnal years of Kaniška. In this note we propose to ascertain the era used in this second group B. Of the dates in this latter group only those which are found in nos. 26 and 35 give us some clue as to the era used, viz.,

26.Zeda : Saṁ 11 Āśāḍhasa masasa di 20 Uttaraphagune iśakṣuṇamī marodasa marjhakasa Kaniṣkhasa rajamī.

35.Und : Saṁ 61 Cetrasa mahasa divase athamī di 8 iśe kṣuṇamī Pūrvāśāḍhe.

These instances state that in the eleventh year of King Kaniška on the 20th day of lunar Āśāḍha, the moon was conjoined with the nakṣatra Uttaraphalgunī, and that in the year 61 of Kaniška, the moon's nakṣatra was Pūrvāśāḍhā, on the 8th day of Caitra. From some examples of date in the Kharoṣṭhī inscriptions Dr. Konow has come to the conclusion that "the full-moon day must be the first day of the month," the chief example being that the first day of Vaiśākha was taken as the full-moon day of Vaiśākha (*Saṁvatsare tiśatīme 103 Veśākhasa divase prathamīme di atra puṇāpakṣe*—no. 10, group A of Konow's list). Here there is no room for a difference of opinion with Dr. Konow. But I have to say that this system of reckoning the full-moon ending lunar months is not Indian, it may be Greek or it may be Babylonian. The month that is called Vaiśākha in this inscription would be called the full-moon ending lunar *Jyaiṣṭha* according to the Indian reckoning. In the *Mahābhārata* also we have, "the full-moon near the Maghās is about to come and the month of Māgha is also drawing to its close."

Now accepting the reckoning of the full-moon ending months as stated in the inscriptions, the meaning is clear that the day that

is spoken of as the 20th of Āṣāḍha is the 5th day of new-moon ending Śrāvaṇa, and the 8th day of Caitra is the 8th day of the dark half of Caitra. Hence we have the dates as :—

(i) Year 11, month Śrāvaṇa, 5th day, *Uttaraphalgunī*.

(ii) Year 61, month Caitra, 23rd day, *Pūrvāṣāḍhā*.

Dr. Fleet is of opinion that the well-known Śaka era and the Kaṇiṣka era, are but one and the same era. Now the years 11 and 61 of the Śaka era are similar to the years 1925 and 1937 A.D. of our times in respect of luni-solar-stellar aspects, and —

(a) In 1925 A.D. on July 26, the moon's nakṣatra was Uttara-phalgunī.

(b) In 1937 A.D. on April 4, the moon's nakṣatra was Pūrvāṣāḍhā.

But the 4th April, 1937 A.D. is shown in modern Hindu Calendars as the 8th day of the dark half of Phālguna. It may be observed, however, that the Vedic standard month of Māgha, came in the year 1935 from February 3 to March 5, and that no intercalary month would be reckoned in those days of pre-scientific Hindu astronomy within the next  $2\frac{1}{2}$  years from February 3, 1935, as was done in the present day Hindu calendars from September 16 to October 15, in the year 1936 A.D. Hence the lunar month that was called lunar Phālguna in the modern calendar for 1937, was called the month of Caitra according to this old reckoning. Hence from a purely astronomical standpoint, Kaṇiṣka's era and the well-known Śaka era may be identified with each other. But this Śaka era started from 78 A.D. is perhaps to be associated with the death of a Śaka King as Brahma-

gupta says—“कलेर्गौरीकगुणाः (३१७६) शकान्तेऽब्दाः” “The Kali years were 3179 (elapsed) at the death of the Śaka King.” Again Brahmagupta calls the years of the Śaka era as “the years of the Śaka Kings” (शक-नृपाणाम् पञ्चाशत् संयुक्तैर्वर्षशतैः पञ्चभिरस्तीतैः<sup>3</sup> i.e., when 550 years of the Śaka Kings had elapsed). Hence the regnal years of King Kaṇiṣka may not be the same as the years of the Śaka era as used by the Hindu astronomers. It seems likely that the Śaka era was started with the death of the predecessor of Kaṇiṣka whose real accession to the throne came in the year 78 A.D., while his regnal years were reckoned from the year of his coronation. On this hypothesis Kaṇiṣka's regnal years or his era was started at a very short interval from 78 A.D.

In the *Paitāmaha Siddhānta* as summarised by Varāhamihira in his *Pañcasiddhāntikā*, the epoch used is the year 2 of the Śaka Kings :—

द्वयूनं शकेन्द्रकालं पञ्चभिरुद्धृत्य शेषवर्षाणाम् ।

द्युगणं माघसिताद्यं कुर्यात् तदहन्युदयात् ॥<sup>4</sup>

“Deduct 2 from the year of the Śaka Kings, divide the result by 5 : of the remaining years find the *ahargana* from the beginning of the light half of Māgha starting from the sunrise of that day.”

We can now readily show that we may take the regnal years of Kaniska to have been started from this year 2 of the Śaka Kings.

On this hypothesis, we have,

the year 2 of Śaka Kings=80 A.D.,

∴ the year 11 of Kaniska=91 A.D.

The year 91 A.D. is similar to the 1927 A.D. of our time ; for the no. of years elapsed=1836 and  $1836=160 \times 11 + 19 \times 4$ . Hence the 20th day of *Āṣāḍha* of the inscription is similar to Tuesday, the 2nd. August, 1927 A.D.

Again the year 61 of Kaniska=141 A.D. and the year in our time similar to 141 A.D. is readily seen to be 1939 A.D., and that the date of the inscription corresponds to Tuesday, the 11th April, 1939 A.D.

Now the interval between 1939 A.D. and 1927 A.D. = 12 years, whereas between the year 11 and the year 61 of Kaniska the interval is 50 years. Now as  $50=19 \times 2 + 12$ , the moon's phases near to the fixed stars which repeat in 50 years also do repeat in 12 years. It is quite consistent to take King Kaniska's regnal years to have been reckoned from the year 2 of the Śaka Kings.

It now remains (i) to determine how and when the year of the Śaka Kings was taken to begin initially, (ii) why the lunar months were reckoned from the full-moon day itself and (iii) to verify by back calculation, the dates mentioned of the years 11 and 61 of Kaniska.

With regard to the first point, we know that in Vedic times the year was taken to begin from the winter solstice day or from the day following ; in the Vedāṅga period also, the year was begun from the winter solstice day. As the time when the Śaka era came to be reckoned was before that of Āryabhaṭa I (499 A.D.), we may reasonably assume that originally the Śaka year also was begun from the winter solstice day.

We assume further that the winter solstice day was correctly determined 5 years before the Śaka year 2 or 80 A.D. The number of

tropical years between 75 A.D. and 1900 A.D.=1825, which comprise 666576 days nearly. On applying these days backward to Dec. 22, 1899 A.D., we arrive at the date Dec. 24, 74 A.D., on which at G. M. Noon—

Mean Sun= $270^{\circ} 56' 21'' \cdot 11$

„ Moon= $121 \ 15 \ 31 \cdot 75$

Lunar Perigee= $231 \ 39 \ 49 \cdot 94$

Sun's Apogee= $69 \ 58 \ 35 \cdot 32$

Sun's Eccentricity= $0 \cdot 01747191$

Hence on Dec. 22, 74 A.D.  
at G. M. N.

Mean Sun= $268^{\circ} 58' 4'' \cdot 45$

Mean Moon= $94 \ 54 \ 21 \cdot 69$

L. Perigee= $231 \ 26 \ 27 \cdot 83$

Appt. Sun= $269^{\circ} 38'$

Appt. Moon= $91^{\circ} 44'$  nearly

Thus on Dec. 22, 74 A.D., the full-moon happened about 4 hours before G. M. N., and the sun reached the winter solstice in about 7 hrs.

This elucidates the points (i) & (ii) viz. that the Śaka year was initially taken to begin from the winter solstice day and why the months were reckoned from the full-moon day itself. In 75 A.D. the mean longitude of *Pollux* was  $86^{\circ} 31'$  nearly; the moon at opposition on Dec. 22nd, 74 A.D., had the longitude at about  $89^{\circ} 28'$ , i.e. about  $3^{\circ}$  ahead of the star *Pollux*, and the day was that of the full-moon of Pausa, and similar in our times to that which happened on Jan. 15, 1930.

The actual starting of the era of Kaṇiṣka may have taken place on our hypothesis from the full-moon day of Dec. 26 of 79 A.D. as the first day of lunar Pausa. This agrees with the statement of the inscription that the Vaiśākha māsa had the first day on the day of the full-moon near the *Viśākhās*.

Having thus shown why the era of Kaṇiṣka may be taken to have been started from the 26th December, 79 A.D., we now turn to determine the date for *Sam* 11, Āṣāḍha māsa, di 20, Uttaraphalgunī. Evidently the date was similar to Aug 2, 1927 A.D., and between these years the interval was 1836 years, which comprise 670611 days nearly. We apply these days backward to Aug. 2, 1927 A.D. and arrive at the date July 8, 91 A.D. and on July 8, 91 A.D. at G.M.N.

Mean Sun= $104^{\circ} 14' 50'' \cdot 20$ ,

Mean Moon= $146^{\circ} 41' 3 \cdot 00$ ,

Lunar Perigee= $184^{\circ} 37' 5 \cdot 67$ ,

Sun's Apogee= $70^{\circ} 15' 34 \cdot 87$ ,

Sun's Eccentricity= $0 \cdot 017466$ .

Hence—

Appt. Sun= $103^{\circ} 7'$

Appt. Moon= $142^{\circ} 36'$

and the "junction star" U. Phalgunī= $144^{\circ} 46'$

Again 19 days before this date, i.e. on June 19, 91 A.D. at G. M. N.—

|   |                                 |
|---|---------------------------------|
| Mean Sun= $85^{\circ}31'11''\cdot93$      | Hence                           |
| Mean Moon= $256^{\circ}19'54''\cdot53$    | Apparent Sun= $85^{\circ}0'$    |
| Lunar Perigee= $182^{\circ}30'5''\cdot64$ | Apparent Moon= $261^{\circ}12'$ |

Thus the full-moon happened about 8 hrs. later, and this was the first day of the month. Hence the 8th of July, 91 A.D. was the 20th day of Āṣāḍha, and it has been made clear that the moon on this day got conjoined with  $\beta$  Leonis or *uttaraphalgunī* in the evening. *The date of the inscriptions was thus July 8, 91 A.D.*

Next as to the year 61 of Kaṇiṣka=Śaka year 63=141 A.D., the moon on the 8th day of the dark half of Caitra was conjoined with the *nakṣatra Pūrvaṣāḍhā*. The day in question was similar to April 11, 1939 A.D. of our time. The number of years between 141 A.D. and 1939 A.D. was 1798, and in 1798 sidereal years there are 656731 days. These days applied backward to April 11, 1939 A.D. lead us to the date :—

March 17, 141 A.D., on which at G. M. N.,

|   |                                 |
|---|---------------------------------|
| Mean Sun= $353^{\circ}44'43''\cdot00$     | Hence—                          |
| Mean Moon= $258^{\circ}15'1''\cdot12$     | Appt Sun= $355^{\circ}41'$      |
| Lunar Perigee= $46^{\circ}46'56''\cdot97$ | Appt Moon= $254^{\circ}14'$ and |
| Sun's Apogee= $71^{\circ}6'27''\cdot69$   | P. Āṣāḍha= $248^{\circ}13'$     |
| Sun's Eccentricity= $\cdot017447$         | ( $\delta$ Sagittarii)          |

Here the conjunction of the moon with  $\delta$  *Sagittarii* on this day was estimated in the previous night. The day in question was of the 7th *tithi* according to the *siddhāntas* and the day of the last quarter was the day following; but this day was the 8th day of the month. For on the 10th March, 141 A.D. at G. M. N.;

|   |                                |
|---|--------------------------------|
| Mean Sun= $346^{\circ}50'44''\cdot70$   | Hence the full-moon had        |
| Mean Moon= $166^{\circ}0'55''\cdot92$   | happened about 3 hrs. earlier. |
| Lunar Perigee= $46^{\circ}0'9''\cdot50$ |                                |

This was the full-moon day and the 1st day of Caitra; hence the 17th March was the 8th day of the month.

Thus we see that the hypothesis that the era of King Kaṇiṣka was started from December 25 of 79 A.D. or from the year 2 of the Śaka era satisfies all the conditions that arise from the dates given in

the Kharoṣṭhī inscriptions; group B of Dr. Konow.' The present investigation shows that the Śaka emperor Kaṇiṣka lived at the beginning of the Śaka era, a view which I hope, would be endorsed by all right minded historians and it would not go against Dr. Fleet. When this solution of the problem is possible we need not try to find others leading to other dates for the beginning of Kaṇiṣka's regnal years.

Dr. Van Wijk, the astronomical assistant to Dr. Konow, has tried to show that the era of Kaṇiṣka was started from 128 A.D. and would identify the regnal year 11 of Kaṇiṣka with 139 A.D.

He based his calculation on the modern *Sūryasiddhānta*, which cannot be dated earlier than 499 A.D. Without examining his calculations we can say that his findings are vitiated for the following reasons :-

- (a) The *Gaitraśuklādi* reckoning of the year as found in the modern *Sūryasiddhānta* cannot be applicable to the early years of Śaka era and Kaṇiṣka's regnal years which were prior to 499 A.D.
- (b) The word "day of the month" means simply a day and is not to be confounded with a *tithi* as used in the modern *Sūryasiddhānta*.
- (c) The word "nakṣatra" mentioned in these inscriptions meant very probably "star clusters" and not 27th part of the ecliptic.
- (d) He has further used the *Indian* full-moon ending months and not the full-moon ending months as used in the Kharoṣṭhī Inscriptions. His identifying the year 11 of Kaṇiṣka with 139 A.D. would thus make the 20th day of Āṣāḍha correspond with July 18, 1942 of our own time—the day of the 5th *tithi* of the new-moon ending lunar Āṣāḍha.

For these reasons I have used the most accurate and up-to-date equations for finding the Sun and moon's mean elements instead of following the *Sūryasiddhānta*. The luni-solar periods used in this investigation are also most accurate and deduced from the constants as given by Newcomb and Brown. It has been shown that the days of the months are also "days" and not *tithis* and *nakṣatras* mean "star-clusters" and not equal divisions of the ecliptic. I have taken the data from the inscriptions as actually observed astronomical events.

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## LATIN AND SANSKRIT\*

By BATAKRISHNA GHOSH

Of all the Indo-European languages of Europe Latin is most like Sanskrit, —both in internal structure and in external history. Both of them are synthetic *par excellence*, and have retained in this respect one of the most prominent characteristics of the original Indo-European which the other dialects have gradually given up. In Latin too, as in Sanskrit, thought appears in a condensed form which the man spoken to must analyse in mind ; cf. *regebamus* “we were ruling”, *monebar* “I was being advised”, etc. Latin sentences too are crisp and curt ; cf. *factum, non fabula* “fact, not fable”, *oderint dum metuant* “they may hate me if they would only fear me”, etc. Caesar’s “*veni, vidi, vici*”, though affected no doubt, was altogether in conformity with the spirit of the Latin language.

Like Sanskrit, Latin has been the cultural language of a continent for nearly two thousand years, and of all the other Indo-European languages only Latin can be compared with Sanskrit in the number of derived daughter dialects. Italian, French, Spanish, Portuguese and Roumanian are the five modern European literary languages directly derived from vulgar forms of Latin, and but for the repeated invasions of England by the Germanic tribes English too would have been to-day a Romance language like French or Italian.

The literature of this language, from which so many literary languages are derived, consisted however at the beginning only of translations and adaptations of Greek works. The first poet who wrote in Latin was the Greek Livius Andronicus (literary activity from 240 to 207 B.C.), and Plautus (died about 184 B.C.), the chief Latin pre-classical poet who wrote in what is supposed to have been the spoken dialect of the common people of Rome, calls himself both a poet and a translator. Terence, a younger contemporary of Plautus, wrote six comedies which are chaster and more truly Attic than the dramas of Plautus. The victory of Greek influence upon Latin literature was assured for all time to come through the labours of Ennius (in Rome from 204 to 169 B.C.), who initiated the sons of the Roman patricians to the higher poetry and literature of Greece, and he it was who gave the Romans the hexameter. It was Ennius

\*Students who might care to read this paper are expected to have first read my “Linguistic Introduction to Sanskrit” (LIS.).



again, more a Greek in spirit than a Roman, who wrote the first prose work in Latin.

Thus under the guidance of Greek tutors Latin literature began to grow, and under the protecting wings of the Roman eagle it blossomed and flowered all over the Roman empire. The empire went to pieces in the fifth century, but the literature with its vehicle the Latin language continued to be a world power for a thousand years longer. Like classical Sanskrit in India, Latin in Europe in the Dark and Middle Ages was the only language of international civilisation and culture. But it more and more identified itself with the Christian Church, and therefore was frowned upon by the leaders of the pagan renaissance. Liberal minds in Europe learned to hate it when the Church began its policy of religious persecution, and it was finally superseded by modern European languages after the great French Revolution which divorced religion from culture.

Judged by the highest standards of human civilisation, the Romans, excepting in architecture, cannot be said to have been great creators of values. But they taught the world how to retain and turn to account the values created and frittered away by the restless Greeks. The Romans did not discover independently any great system of philosophy that may be said to have become part of the common heritage of human civilisation. But to a large portion of Europe they gave centuries of peace. Thus they unconsciously taught mankind a lesson which we have not yet been able to assimilate,—that peace is desirable and that it is possible to organise peace. Roman imperialism however has been eagerly imitated with varying success by every European power to the present day. In the field of ethics an inordinate veneration for law was the chief characteristic of the Romans of the best type imbued with the teachings of Stoic philosophers. And it is not without reason that Roman law has been accepted as the basis of jurisprudence in all the European countries. But this can be hardly called lucky, for the Romans mistook order for justice, just as in art they mistook symmetry for beauty. It is ancient Rome at work when in India, for instance, we hear to-day so often of law and order but never of law and justice.

Latin is only one of the various Indo-European and non-Indo-European languages of ancient Italy, and it is due to political accidents and nothing more that Latin has triumphed over all of them. To understand the position of Latin, therefore, it is necessary to take account of these other languages. Moreover, as Latin and the other ancient Indo-European dialects of Italy share with the Celtic languages a number of striking linguistic innovations (see LIS., p. 26) the history of Latin should begin really with the hypothetical age of Italo-

Celtic unity. But of this age we know nothing. We shall have to content ourselves therefore with noting down the linguistic innovations common to Italic and Celtic.—For the earliest period of Latin our chief source is the inscriptions, but they are neither so abundant nor so old as the dialectical inscriptions of Greece. Latin literature too is late compared with that of Greece, Iran and India. Inscriptions in other dialects of Italy are still later if Etruscan is left out of consideration. The Etruscan inscriptions however, of which there are thousands, may be very old, but they have not yet been deciphered.

The ancient Indo-European dialects of Italy fall into two groups, namely Latin-Faliscian and Oscan-Umbrian. The former comprises Latin with its local variations in the different towns of Latium and Faliscian spoken in the south-eastern part of Etruria. Faliscian inscriptions clearly prove that it differed but slightly from Latin. The Oscan-Umbrian group is so named from its two most important dialects, but it includes also the dialects of the minor tribes of central Italy which are sometimes called Sabellian. Of the Sabellian dialects Paelignian closely resembles Oscan, but Volscian (known only from one inscription of four lines) resembles Umbrian more than Oscan.

Oscan was by no means a mere local patois : Ennius boasted of having three souls because he could speak Greek, Oscan and Latin. That it was the language of the Samnites is clear from the indications of Latin authors. Livy, for instance, says that during one of the Samnite wars the Roman consul sent out spies who knew the Oscan language. It would seem that the Oscans were a branch of the Samnites speaking essentially the same language. There are over two hundred Oscan inscriptions.—Umbrian is known chiefly from the Iguvian Tables (first century B. C.) containing between four and five thousand words.

Regarded from the view-point of Italic vocalism Umbrian and Oscan may be said to represent the two extremes with Latin in the centre. Oscan has retained the Indo-European diphthongs with a fidelity rivalled only by Greek, but Umbrian has gone further even than Latin in levelling them down. In other respects however Oscan-Umbrian is sharply distinguished from Latin-Faliscian. Indo-European labio-velars, for example, appear as labials in Oscan-Umbrian, but in Latin-Faliscian as *qu* (*g*)*u*. Thus Lat. *quod* : O. *pūd* : U. *pur̥-e* (in Umbrian intervocalic *d* became *r̥*, pronounced *rs*); Lat. *quid* : O. *pīd* : U. *pīr̥-e*; Lat. *quanta* : U. *pantan*.—I.-E. *g<sup>w</sup>* appears in Latin as *v* or (after *n*) *gu*, but in Oscan-Umbrian as *b*. Thus Lat. *veniō* : O. *lrim-bened* : U. *benust* : I.-E. *\*g<sup>w</sup>em-* : Skt. *gam-*; Lat. *vīvus* : O. *bivus* : I.-E. *\*g<sup>w</sup>elagos* : Skt. *jīvaḥ*; Lat. *unguen* : U. *umen* < *\*omben* : I.-E. *\*ang<sup>w</sup>-* : Skt. *anākti*. Lat. *bōs* (< I.-E. *\*g<sup>w</sup>ōus-* : Skt. *gauḥ*) is clearly a loan-word from some Oscan-Umbrian dialect.—I.-E. *g* *h* has developed into various sounds in Latin (see below), but in

Oscan-Umbrian we find only *f* corresponding to it; thus from I.-E. \**e<sub>2</sub>eg'h* we have Umbrian *vufetes*: Lat. *voveō*: Gr. *eúkhomai*: Skt. *vāghdt*.

The chief distinguishing feature of Oscan-Umbrian is doubtless this labialisation of Indo-European labio-velars, but these dialects differ from Latin also on many other points which it is necessary to briefly consider in this connection:—<sup>1</sup>

1. Extensive syncope of short vowels in non-initial syllables; thus O. *húrz*: Lat. *hortus*, U. *Ikuvins*: Lat. *Iguvinus*, etc.

2. Assimilation of *nd* to *nn*; thus O. *ípsannam*: Lat. *operandam*, U. *pihaner* (for \**pihanner*): Lat. *piandi*.

3. Retention of *s* before nasals and liquids, where it is lost in Latin. Thus O. *físnam*: Lat. *fanum*, O. *kersnu*: U. *sesna*: Lat. *cena*.

4. Retention of *a* in medial syllables, where it is weakened to *e* or *i* in Latin. Thus O. *Anterstatai*: Lat. \**Interstitae*; U. *antakres*: Lat. *integrís*.

5. Representation of original *bh* and *dh* by *f*, not only initially as in Latin, but also medially, where Latin has *b* or *d*. Thus O. *tfei*: U. *tefe*: Lat. *tibi*; O. *mefiú*: Lat. *media*: Skt. *mádhyā*; U. *rufru*: Lat. *rubros*: Skt. *rudhírd*.

6. Change of final *ā*, which in Latin is shortened, in the direction of *ō*. Thus O. *molto*: U. *mutu muta*: Lat. *multa*.

7. Change of *kt* to *ht*, and of *pt* to *ft* (which in Umbrian further changes to *ht*). Thus O. *úhtavis*: Lat. *octavius*, U. *rehte*: Lat. *recte*, O. *scritas*: U. *screhto*: Lat. *script*.

8. Change of *ns* to *f*, though under different conditions, in Oscan and Umbrian. Thus O. *úittiuf* < \**oitiōns*: Lat. *usus*; U. acc. pl. *eaf* < \**eans*: Lat. *eas* (but O. *vlass*).

9. In nominal flexion Oscan-Umbrian is more conservative than Latin. In the first declension (*ā*-stems) the gen. sg. has the ending *-ās*, which can be seen in Latin only in frozen phrases like *pater familiās*; the nom. pl. of *ā*-stems shows the historical ending *-ās* in Oscan-Umbrian, but in Latin the corresponding ending *-ae* is an innovation. In the second declension (*o*-stems) the gen. sg. of Oscan-Umbrian has borrowed the ending *-eis* from *i*-stems, but in Latin we find the ending *-i*; the dat. sg. has the ending *-oi* which can be perceived in Latin only in the word *Numasioi* occurring in the oldest extant Latin inscription of the Praenestine brooch (600 B.C.); the nom. pl. has in Oscan-Umbrian the original noun-ending *-os* for both nouns and pronouns, while Latin has *-i* (< *-oi*) which is the pronominal ending; the gen. pl. has in Oscan-

1. See Buck, *A Grammar of Oscan and Umbrian*, pp. 7ff.

Umbrian the original ending *-om* (Lat. *-um*) in place of Lat. *-ōrum* which is borrowed from pronominal flexion. In the third declension the nom. pl. of consonant-stems and *i*-stems are kept distinct in Oscan-Umbrian, but not in Latin.

10. Differences in verbal system are numerous and striking. Oscan-Umbrian pres. infin. act. ends in *-om*, but that of Latin in *-se*; thus O. *ezum*: U. *erom*: Lat. *esse*. The characteristic Oscan-Umbrian *f*-perfect is lacking in Latin, while the Latin *vī*- and *s*-perfects are lacking in Oscan-Umbrian. In the third person sing. and third person pl. there is in Oscan-Umbrian a difference between primary endings (*-t*, *-nt*) and secondary endings (*-d*, *ns*); Latin shows *-d* in some of the earliest inscriptions, but nothing corresponding to *-ns*. The third person sing. and pl. of the passive have in Oscan-Umbrian the endings *-ter* and *-r* which are unknown in Latin (cf. O. *vincter* but Lat. *vincitur*, U. *ferar* but Lat. *feratur*).

Oscan and Umbrian have agreed to differ from Latin on these and other points, but there are points on which they do not agree among themselves. Original diphthongs are preserved intact in all positions in Oscan, but in Umbrian they are monophthongised in all positions. Thus Lat. *aut*: O. *aut*: U. *ote*; Lat. *prae*: O. *prai*: U. *pre*; the dat.-abl. pl. ending *-ois* is retained in its original form in Oscan, but it is *-es* in Umbrian and *-is* in Latin. Intervocalic *s* is sonorised in Oscan, but in Latin and Umbrian it changes further into *r* (rhotacism!); thus the genitive plural ending of *ā*-stems is *-ārum* in Latin and Umbrian, but *-azum* in Oscan (both from I.-E. *\*-āsōm*. Before palatal vowels, *k* is assibilated in Umbrian (so also in late Latin) but not in Oscan; thus U. *façia*: O. *fakiiad*: Lat. *faciat*. Gutturals are liquefied into *i* before *t* in Umbrian; thus U. *aitu*: O. *actud*: Lat. *agitō*. The change of intervocalic *d* to *rs* (*ṛ* in Umbrian alphabet) is another distinguishing feature of Umbrian; thus U. *perṛi*: Lat. *pede*. Even more remarkable is the change in Umbrian of original final *-ns* to *-f*, for which Oscan has *-ss*; thus U. *eaḑ* (<*\*eans*> Lat. *eas*) but O. *viass* (<*\*vians*> Lat. *vias*). Most important of all, Umbrian alone of the Italic dialects has retained the I.-E. pronominal formans *-sm-*; thus U. *pusme esmei* corresponding to Skt. *kāsmāi dsmāi*.

It will be clear from the foregoing that "the differences between Oscan-Umbrian and Latin are considerable. They are far greater, for example, than those between the Greek dialects."<sup>2</sup> And moreover, these differences are of pre-Italic-Italo-Celtic-antiquity. We know that Italic and Celtic are a pair of twins among the Indo-European family of dialects, characterised by a number

of common linguistic innovations (LIS., p. 26). What is however quite astonishing in this connection is the fact that these innovations are distributed among the Italic dialects in the same manner as among the Celtic dialects,<sup>3</sup>—to the result that some peculiarities of Latin, though unknown in Oscan-Umbrian, may be discovered in one group of Celtic languages, while some peculiarities of Oscan-Umbrian, though unknown in Latin, may be the distinguishing feature of another Celtic group. It would thus seem that the specific characterisation of Latin and Oscan-Umbrian had taken place, in part at least, already in the Italo-Celtic period, long before any Italic speech was spoken in Italy. Let us consider here some of these strangely distributed Italo-Celtic innovations.

In the use of medial and passive verbal forms in *-r* Latin goes with Gaelic in so far as only these two languages share the deponential flexion in *-r*; thus Lat. *sequor*: O. Ir. *sechur*, Lat. *sequimur*: O. Ir. *sechimmir*, Lat. *sequuntur*: O. Ir. *sechitir*, etc. On the other hand only Oscan-Umbrian and Britannic know the passivic third person singular in bare *-r* without the preceding *-t*; thus U. *ferar* (against Lat. *feratur*) and O. *sakrafir* are paralleled by Cymric *celir*, etc. The *b*-future is shared in common by Latin and Irish, while in Oscan-Umbrian we find an *s*-future; in Britannic the present is used in future sense. The syllabic nasal appears in Latin and Irish before consonants as *en*; thus Lat. *centum*: Ir. *cēt* (< \**cent*: I.-E. \**k̑ntóm*); in Oscan-Umbrian and Britannic however it has developed into *an* in initial position (cf. on the one hand U. *antakres*=Lat. *integris* O. *amprufid*=Lat. *improbe*, and on the other the Cymric prohibitive particle *an*-<I.-E. \**q̑-*). The disagreement between Latin and Oscan-Umbrian observed in the treatment of Indo-European labio-velars (see above) is paralleled by similar disagreement among the Celtic dialects; just as Lat. *qu* appears as *p* in Oscan-Umbrian, so does Gaelic *q* (later *c*) appear as *p* in Britannic; thus O. Ir. *maqqi* (later *maci*): Cym. *map*.

How these differences and agreements—both equally striking—between Italic and Celtic are to be explained we do not know. It seems as though Latin and Gaelic had somehow got mixed up even before primitive Italic and primitive Celtic were characterised as homogeneous groups! Regarding Oscan-Umbrian and Britannic however it is necessary to remember that though their relation is as intimate as can be, yet common linguistic innovations in the strictest sense are wanting. It has to be assumed at any rate, that primi-

8. Celtic dialectology will be fully discussed in the chapter on Celtic languages. For our present purpose it will be sufficient to note that apart from Gallic they are divided into two groups, viz. (1) Britannic consisting of Cymric (Welsh), Cornish, and Breton (Armorican), and (2) Gaelic consisting of Irish Gaelic, Scotch Gaelic, and Manx.

tive Latin and primitive Oscan-Umbrian had been distinctly characterised even before the speakers of these hypothetical dialects reached Italy.

Before we begin our analysis of the Latin language it will be necessary to consider yet another factor of vital importance without which the Latin language and Roman civilisation would have been much different from what they have been. It is the influence of the non-Indo-European Etruscan language.<sup>4</sup> To survive—let us hope, as the fittest—Latin had to destroy not only her compeers, the other Indo-European dialects of Italy such as Oscan and Umbrian, but also Etruscan, which was the language of the highly developed pre-Indo-European civilisation of Italy. There are thousands of Etruscan inscriptions, but instead of decipherment we have as yet mostly very learned hypotheses. But an Etruscan period of Italian history, just at the threshold of the historical period, is now accepted by all authorities. Roman history begins in fact with the Etruscans settled between the Po and the Tiber and the Greeks in the south. Cramped between these two civilised peoples the rude Latins must have at first led a miserable life in the middle. But their opportunity came when the Etruscans were crushed by the intruding Celtic hordes, who in 390 B.C. under Brennus were within an ace of capturing Rome. Being a commercial people the Etruscans could not offer any stout resistance to the Celts or the Romans. Modern research on the whole supports the tradition recorded by Herodotos that this mysterious people was originally at home in Asia Minor. Kretschmer, for instance, has accepted the identity of the Etruscans with the Tyrrhenians well known in ancient history. According to this authority,<sup>5</sup> the form *Tursāno-* (> *Tyrrhēno-*) was changed to *Tursco* by the Umbrians in whose language the suffix *-co* was very productive, and this *Tursco* further became *Tuscom* (modern *Tuscany*).

The Etruscans were to the Latins what the Pelasgoi were to the Greeks, and it has been suggested that the Pelasgoi and the Etruscans might have been the same people. Even granting the impossibility of proving the identity of two unknown entities, it remains nevertheless a striking fact that words marked by the sound-group *-nth*, which was certainly a distinguishing feature of the place-names of Asia-Minor, did occur both in Pelasgian and Etruscan. The god of Love engraved on an Etruscan mirror bears the inscription *aminth*. This proves incidentally that Lat. *amo* "I love", for which no satisfactory parallel can be found in any Indo-European language, was a word borrowed from the Etruscans. So was Lat. *pulcher* "beautiful", of which the unusual aspiration

4. The present stand of Etruscology has been described by Eva Fiesel, "Die Forschung der indogermanischen Sprachen", Band 5, Lieferung 4; 1991.

5. Einleitung in die Altertumswissenschaft, Sprache, p. 107.

would otherwise remain unexplained.<sup>6</sup> Schulze has proved in a monumental work that Latin proper names are largely of Etruscan origin: in fact the name of the Eternal City is an Etruscan word. Ancient Roman authors frankly admitted that many words of cultural import were taken into Latin from Etruscan, e.g. *histrio* "actor", *idus* "middle of the month", *balteum* "girdle", *atrium* "hall, house," *persona* "mask," etc. The Etruscan suffix *-enna* has been attached to the Latin word *levis* in *levenna*.

But the Etruscans did not only bequeath their own culture to the Latins. In the earlier period the Greek culture too was transmitted to the Latins by the Etruscans. That the Romans in reproducing Greek words in Latin often used *tenuis* for *media* is generally supposed to be due to the fact that the words concerned, before reaching the Latins, had passed through the hands of the Etruscans, in whose language no distinction was made between *tenuis* and *media* (both being usually indicated by the sign for the *tenuis*); thus Lat. *sporta*=Gr. *spurida*, Lat. *Catamitus* (cf. Etr. *Catmite*)=Gr. *Ganumêdês*. The Etruscans in fact possessed only one series of occlusives which corresponded neither to the *tenuis* nor to the *mediae* of Greek and Latin. In the case of gutturals the Etruscans seem to have distinguished between labio-velar, velar and palatal like the primitive Indo-Europeans! In any case, they used three different Greek signs to indicate the guttural *tenuis* before vowels of three different timbres, e.g. KA, CE-CI, QO-QU. In imitation of the Etruscans, the early Romans too, who had received their alphabet from the Greeks through the Etruscans, began to write KA CE QU, though however there is nothing to show that the quality of the guttural *tenuis* actually varied in early Latin according to the following vowel. Now, of these three guttural-signs, K is derived from Greek Kappa and Q from Greek Koppa, but C from Greek Gamma! This is again due to the agency of the Etruscans, who apparently could not distinguish between *tenuis* and *media*. The original value of C is retained in early inscriptions (e.g. ECO=*ego*) and some frozen abbreviations such as C.=*Gaius*, CN.=*Gnaeus*. When the sign C became completely monopolised by the guttural *tenuis* in Latin, the Romans invented the new sign G (a modified form of C) to indicate the corresponding *media*.

Thus arose gradually the imposing structure of the Latin language—the dialect of Rome which at an early date had become the common speech of the whole of Latium. Classical authors like Cicero and Caesar invested it with sepulchral dignity but could not still its throbbing life. Behind its

6. Prof. Sommer however does not consider this aspiration to be sufficient proof of the Etruscan origin of *pulcher*.

frozen façade the Latin language grew and changed, and in our own day has blossomed forth into the literary and artistic languages of Italy, France and Spain besides various minor dialects. These Romance languages are not derived from the elegant literary dialect of Cicero, but from the living language called Vulgar Latin which was much different in many ways. Though the high-brow literati would not admit the change, the diphthongs in the living language were early levelled to monophthongs: *Caecilius* > *Cecilius*, *auricula* > *oricula*, etc. It is interesting to note in this connection that the literary snobs of Rome, to emphasise their superior and distinctive culture, went even so far as to diphthongise the monophthongs in the Greek loan-words they were so fond of; thus Gr. *skēnē* became *scaena* in their hands, and Gr. *skēptron* became *scaeptrum*.

It has to be admitted that classical Latin, like classical Sanskrit, was an artificial dialect spoken by none but cherished by all. This is borne out by authentic Latin inscriptions of the classical age which reveal a bewildering confusion in orthography, phonology and grammar. In an inscription of 122 B.C., for instance, we find side by side *arvorsario* and *advorsarium*, *avorsum* and *aversum*, *quai* and *quae*, and the four forms *lis*, *slis*, *litis* and *leitis* of one and the same word. Ten years later we find in another inscription side by side the forms *oina* and *unum*, *iou* and *ius*, *poplicus* and *publicus*, etc. The stately and homogeneous Latin that we find in classical texts is in fact largely the result of propaganda by the Roman government in favour of particular forms to the exclusion of others. It is recorded in history that the Censor Appius Claudius Caccus put an end to the confusion between *s* and *r* in intervocalic position by means of a state ordinance. In this work of standardising the Latin language the Roman government received material help from poets and publicists. The poet Ennius, for instance, is said to have started the practice of reduplicating consonants in Latin orthography in proper cases, and to the scholarly freed slave Carvilius goes the credit of introducing the new sign *G* into the Latin alphabet. The grammatical endings too were by no means uniform before official standardisation. Final *-m* and *-s* were so reduced in pronunciation under certain circumstances that in the oldest inscriptions we find them often altogether dropped; thus *Cornelio*=*Cornelios*, *oino*=*unum*, *duonoro*=*bonorum*, etc. This ungrammatical suppression of the ending however became a permanent feature of the language in the words *non* < *noenum*, *nihil* < *nihilum* and *animadverto* < *animum adverto*. Final vowels of dissyllabic words were as a rule syncoped in spoken language as is clear from Plautinian prosody; and in *nec* < *neque*, *ac* < *atque*, *neu* < *neve* we see that the new form originated through the syncope of final *-e*



even succeeded in wringing recognition from orthodox grammarians. The medial *i* in *calidus aridus avidus* was dropped in the living dialect, but the literary language recognised this vowel-drop only in the case of *valde* < *validus*. In this way, through the combined efforts of the state and the literati, a standardised Latin language came into existence, which however was cultivated only by the smart set of the city and was therefore devoid of natural vitality. The living Latin was the language spoken by the artless rustics, never without sharp dialectical variations, and therefore a meet mother of the Romance languages.

The Plautinian dialect may be called archaic vulgar Latin, and as such it may claim closer relation with the Romance languages than the immaculate Latin of Cicero. It is highly significant that some peculiarities of the Romance languages can be traced back to the Plautinian dialect but not to classical Latin. The French articles *le la les*, for instance, cannot be derived directly from *ille illa illos* of classical Latin with accent on the first syllable; they presuppose Latin forms with accent on the last syllable (*illē illā illós*) the existence of which is revealed only by Plautinian prosody. In French *vingt trente quarante* etc. (from Lat. *viginti triginta quadraginta*) the syllable *-gi-* has been evidently dropped—which therefore could not have been accented, though according to the law of penultimate accent (see below) in Latin, precisely this *gi* should have been the accent-syllable in these words. This anomaly is again explained by Plautinian prosody which shows that in the spoken language the corresponding Latin words were accented *viginti triginta quadraginta*.

Latin grammarians have described the chief characteristics of vulgar speech under four heads, viz. *absonum*, *agreste*, *inconditum* and *peregrinum*. *Absonum* covers everything that was considered vulgar in a general sense by people of refinement, a typical example being *testa* ("pot") in the sense of "head": it is significant that French *tête* "head" is derived from this *testa* and not from *caput*. *Agreste* means "provincial" in the sarcastic sense, and signifies the rusticity implied in the levelling of diphthongs, etc. By the term *Inconditum* were meant grammatical irregularities in general, from which however even the state edicts were not free. The term *Peregrinum* was used by Roman grammarians to deprecate the vulgar practice of introducing foreign (chiefly Greek) words into Latin. But the extent to which spoken Latin was flooded by Greek loan-words can be guessed only from a careful study of the Romance languages. Thus French *parole* is derived from Gr. *parabolē* which seemingly had ousted the Latin equivalents in common speech; cf. also Italian *cera* "face" from Gr. *kára*, Spanish *cada* "every" from Gr. *katá*, etc.

Having thus dealt with the external influences which in various ways influenced its course of development, we shall now discuss the special laws of Latin which were chiefly responsible for the characterisation of this language as a particular dialect of the Indo-European family. The most important of these laws are perhaps those about Latin accent.

Original Indo-European accent was predominantly musical and free to choose its place on any syllable in the word as we find in Vedic Sanskrit. But already in prehistoric Latin the accent became predominantly expiratory and came to stand *always on the first syllable*. This is clearly proved by the weakening of the vowel in non-initial syllables; thus *ágō* but *éxigō* < \**éx-agō*, *cánō* but *cécinī* < \**cécanai*. Similar weakening may be observed also in early Greek loan-words; Gr. *Katánē*, for instance, at first became \**Cātana* in the mouth of the Romans and then became *Cātina*.

This prehistoric Latin accent was again violently disturbed in the historical period by the law of penultima which may be formulated as follows: *every stressed word has the main accent on the penultima if it is long (by nature or position), and on the antepenultima if the penultima is short*. German and French scholars are sharply divided in two national camps over the exact nature of this historical Latin accent. For this disagreement the Latin grammarians themselves are partly responsible. The older Latin grammarians declared the historical Latin accent to be musical, and this view has been on the whole accepted by the French scholars. But the older Latin grammarians were so much under Greek influence that it is not at all improbable that even when writing about their own language they were thinking of Greek, in which, it is true, the accent was predominantly musical. Later Latin grammarians however, who had to a large extent emancipated themselves from the tutelage of Greek masters, have clearly stated that the historical accent was expiratory. This view has been accepted by practically all the German scholars and elaborately justified by Professor Sommer,<sup>7</sup> even though the comparatively good state in which the Indo-European vowels have been preserved in Latin may indeed seem to lend support to the opposite view.

Latin vowels were so vitally affected by the prehistoric shift of accent to the first syllable that without a careful consideration of its chief effects it is quite impossible to form any clear idea about the laws of the Latin language. Its primary effect was to retain almost unchanged the vowel of the first syllable. But its secondary result, which we shall now discuss, was the weakening of

7. *Handbuch der Lateinischen Laut- und Formenlehre*, 2nd ed., § 72. Stolz-Leumann in *Lateinische Grammatik*, 5th ed., § 168, have not taken any side in this controversy.

vowels of middle syllables in various ways. The vowel *i*, for instance, changed to *e* before *r* < *s*; thus *cinis* but *cineris*. Before labials however it seems to have become an intermediate vowel between *i* and *u* appearing in both these forms; hence *uituperō* < \**uitiparō*, and inscriptional *Lusumacus* besides *Lusimacus*. Similarly the vowel *u* too assumed an intermediate quality in middle syllables; thus *inclutus* and *inclitus* from \**énclutos*. The vowel *a* appears as *e* in middle syllables before consonant-groups; thus *acceptus* from \**ād-cap-tos*, *confectus* from \**cōnfectos*. This *e*, the weakened form of *a*, further becomes *i* if the following consonant-group begins with *n* or *ñ* (thus *cōnfringō* from \**cōnfrango*, *attīgō* from \**āttango*), but it becomes *u* before *l*+consonant (thus *īnsulsus* from \**ēnsalsos*, *conculco* from \**cōncalco*).—The *e* of the middle syllable, be it the result of the weakening of *a* or an original *e*, changes into *i* before a single consonant; thus *cecidī* < \**cēcedeī* < \**cēcadai* from *cadō*, *abīgō* < *ābago* from *agō*, *reddidī* < \**rēd-dedai* from *dedī*, *obsideō* < \**ōbsedeo* from *sedeō*. This weakening of *e* into *i* however was hindered by an immediately preceding *i* (cf. gen. sg. *parietis abietis* from *pariēs abiēs*) or immediately following vowels (cf. *aureus*, *adeō*, *moneō*) or *r* (cf. *peperi* < \**pēparai* from *pariō*, *camera* < *cāmara* < Gr. *kamára*). It should be noted further that this weak *e* of the middle syllable developed into *u* (through *o*) before guttural *l*; thus Gr. *spatālē* > \**spātēlā* > \**spātōlā* > *spatulā*, Gr. *Sikelós* > \**Sice-los* > \**Sicolos* > *Siculus*. That this modification of the *e* of the middle syllable did not take place before palatal *l* is proved by the form *Sicilia* of the same place-name. Before labials the post-tonic *e* of middle syllables seems to have developed into *ū*, indicated sometimes by *u* and sometimes by *i*; thus \**óccapō* > \**óccēpō* > \**óccūpō* > *occupō*, \**récapērō* > \**réceperō* > \**récüperō* > *reciperō*. It is for this reason that we have both *optumus* and *optimus* < \**-temo-* < \**-tmmo-*.—The vowel *o* normally becomes *i* in middle syllable, e.g. *cupiditās* < \**cūpidotāts*; but after *i* it appears as *e*, e.g. *pietās* < \**piotāts*; before guttural *l* it becomes *u* as in *sēdulo* < \**sē dolōd*, *epistula* < \**ēpistola* < Gr. *epistolē*.

The diphthongs in middle syllables were reduced much more than the monophthongs as the result of the shift of accent to the first syllable in pre-historic Latin. Thus *incīdo* < \**éncaidō* from *caedō*, *diffidō* < \**dīsfeidō* from \**feidō* = Gr. *peithō*. If *oi* too, like *ai* and *ei*, had become *ī* in middle syllable is not clear; examples like *commūnis* < *commoinis* would suggest that in middle syllables post-tonic *oi* behaved in the same manner as initial tonic *oi*. Unaccented *eu* and *ou* too of middle syllables seem to have developed in the same manner as the initial accented *eu ou* (see below); but medial *au*, unlike the accented *au* of the first syllable, has been reduced (through *ou*) to *ū*; thus

*excūsō* < \**éxcaussō* from *causa*, *conclūdō* < \**cónclaudō* from *claudō*, etc.

It will be clear from the above survey that vowels of middle syllables were mostly weakened as the result of the pre-historic accent-shift. Its effect on the vowels of final syllables however was different: if uncovered, they were mostly dropped; thus Lat. *et tot quot*: Skt. *ḍī tāti kṛti* (but cf. Lat. *pēde patre*: Gr. *podī patrī*; here the final *i* has been weakened but not dropped). The final *-u* of Skt. *makṣū* has been dropped in Lat. *mox*.—Short vowels of final covered syllables have on the whole developed like the short vowels of middle syllables.

As the long monophthongs of middle syllables are retained unchanged, it may be expected that they would be spared drastic modifications also in final syllables. This is however true only of the period when the weakening of short vowels was taking place. Later however, i.e. just before the beginning of Latin literature, long vowels in final syllables were vitally affected by the *Law of Iambus-shortening* which may be formulated as follows: if in a sequence of syllables of iambic rhythm the accent (word-accent or verse-ictus) lies on the short, or follows immediately after the iambus, the iambus becomes pyrrhichic. That is to say,  $\text{—} \text{—}$  and  $\text{—} \text{—} \text{—}$  become  $\text{—} \text{—}$  and  $\text{—} \text{—} \text{—}$  respectively. There is a long controversy and a vast literature on the various aspects of this Law of Iambus-shortening. Nor is it formulated in the same manner by all the authorities. But its importance for the language will be apparent, for instance, from the fact that due to it the second syllable of every dissyllabic word of Latin is expected to be short if it begins with a light syllable. But there are numerous exceptions to this rule. Like the ungrammatical lengthening of final vowels in the Vedic language (see I.I.S., pp. 66-67), the iambus-shortening of Latin is essentially a phenomenon of the spoken—and therefore affected—speech. Thus in the imperative verb-form *putā* “estimate!” the length of the final vowel has been retained against the law; but it is shortened when the same word is used adverbially, thus *putā* “for example”. In paradigm, this law is very often set at naught by the force of analogy; thus from *vir* “man” we have in gen. sg. *virī*, dat. sg. *virō*, acc. pl. *virōs*—all against the law, on the analogy of corresponding flexional forms of non-iambic words such as *hortus*, *animus* etc. On the other hand, iambus-shortening influenced the final of non-iambic words; thus the short final of *terrā rēgīnā* etc. is at least partly due to the analogical influence of forms like *iugā* < \**iugā* (Skt. *yugḍ*) in which the shortening of the final vowel is regular. In the first person singular, Plautus still uses the older forms *ferō volō* besides later ones *ferō volō* on which the effect of this law of iambus-shortening is unmistakable. On the whole it

may be said that isolated words were most exposed to the influence of this law.

Diphthongs in final syllables undergo the same weakening as in middle syllables, *i*-diphthongs (through  $\bar{e}$ ) thus becoming  $\bar{i}$ . Through iambus-shortening this resultant long vowel may however appear as short; thus I.-E. *\*mebh(c)i-* (Skt. *māhy-am*) > prim. Ital. *\*mehei* > Old Lat. *mihei* (= *mihī*) > *mihī*. No fitting example of an *u*-diphthong in final syllable can be found, for in initial and middle syllables too it is weakened to  $\bar{u}$  as in the final syllable. The diphthong *au*, it is true, does not become  $\bar{u}$  in all non-final syllables, but then there is no sure example of final *-au* in Latin, and so it is impossible to decide if there was any difference in the behaviour of this diphthong in final and non-final syllables.

We have described at some length the direct and indirect effects of the first accent-shift in prehistoric Latin, for it is by far the greatest single factor in determining the internal history of Latin vowels of non-initial syllables, and also in lending a distinctive character to Latin vocalism. But we must not forget the second Latin accent-shift to the penultima (mentioned above) which took place within the historical period. Its effect on Latin vowels was however quite insignificant in comparison with that of the first accent-shift. That is chiefly because the vowels amenable to weakening by the second shift had been already weakened almost to the farthest limit through the first accent-shift. The only tolerably certain mutative effect of the historical accent on Latin vowels is to be found in the changes involved in *lavāre pavēre* out of *\*louāre \*povēre* (so Stolz-Leumann, § 77). It is not without substantial reason, therefore, that the French scholars (also Niedermann) declare this historical accent on the penultima to have been predominantly musical, for only a musical accent—the accent of the Vedic language for instance—leaves more or less undisturbed the quantity of the neighbouring vowels.

From the above survey of the effects of the prehistoric initial stress accent of Latin it will be quite clear that normal Latin representatives of Indo-European vowels are to be sought (though not always found) in the first syllable. That the normal representatives are not always found in initial syllables is chiefly due to the attraction of the vowels of second syllables (regressive assimilation) which is an important factor of Latin phonology; cf. *siliqua* < *\*sceliquā*, *cinis* < *\*cenis*, *bonus* < *dzenos*, *homō* < *hemō* etc. (Sommer, pp. 112–115).—We are now sufficiently forewarned to be able to understand the history of Indo-European vowels in Latin.

I.-E. *a* has been normally retained unchanged in the first syllable; cf. Lat. *ago*: Gr. *ágō*: Skt. *ájāmi*, Lat. *ager*: Gr. *agrós*: Skt. *ájraḥ*, etc. So also I.-E. *ā*; cf. Lat. *māter*: Doric *mātēr*: Skt. *mātā*.—The two Indo-European normal

vowels *e o*, along with their long forms *ē ō*, have also been retained; cf. Lat. *est* : Gr. *estí* : Skt. *ásti*, Lat. *rēx* : Skt. *rāj-*, Lat. *potis* : Gr. *pósis* : Skt. *pátih*, Lat. *nōtus* (< *gnōtus*) : Gr. *gnōtós* : Skt. *jñātāh*.—Also the extreme vowels *i u*, along with *ī ū*, have been normally retained in Latin; cf. Lat. *vidua* : Goth. *widuwō* : Skt. *vidhāvā*, Lat. *ovis* : Gr. *ó(v)is* : Skt. *ávih*, Lat. *iugum* : Gr. *zugón* : Skt. *yugám*, Lat. *ruber* : Gr. *eruthrós* : Skt. *rudhirāh*, Lat. *fūmus* : Gr. *thūmós* : Skt. *dhūmāh*.

Of the short *i*-diphthongs, *ai* was retained in the first syllable till the end of the third century B.C. as inscriptional forms like *aide* (= *aedem* : Gr. *aithō* : Skt. *édhah*) clearly prove. Later however it became *ae*; cf. Lat. *caccus* : Goth. *haihs*, Lat. *haedus* : Goth. *gais*.—Also for *ei*, diphthongal pronunciation till 186 B.C. is guaranteed by forms like *deivos* (Skt. *devāh*) in inscriptions in which *i* is not represented by *ei*. About 150 B.C., however, this diphthong had become a long *ī* in pronunciation—to the result that *ei* now began to be written also for old and genuine *ī* (inverse writing!). The intermediate stage between *ei* and *ī* was *ē* (closed *ē*) which remained unchanged if *u* followed immediately; hence *deivos* at first became \**dēvos*. But as *z* before *o* is dropped in Latin excepting in absolute initial (Sommer, § 94.2), this \**dēvos* further became \**dēʒs*. At this stage here intervened the rhythmic law "vocalis ante vocalem corripitur" (LIS., p. 67), according to which every long vowel when confronted by another vowel is shortened (Sommer, § 84. 2.). Thus \**dēʒs* became *deus*.—The diphthong *oi* is retained in early inscriptions in forms like *oino* (acc. sg.) "one" : Gr. *oinē*. About the middle of the second century B.C. it became *ū* in pronunciation, but *oi* as well as the intermediate form *oe* (excepting after initial labial) continued to be used as graphic archaisms (Sommer, § 63). Thus *oinos* became *oenus*—whence (the classical form *ūnus*. After initial *z* and between *l* and labial or *qu* however *oi* developed into *ī* (over *ei*, *ē*); thus Lat. *vīcus* : Gr. *(v)oiikos* : Skt. *veśāh*, Lat. *vīdī* : Gr. *(v)oiōda* : Skt. *vēda*, Lat. *limus* : O. H. G. *leimo* from \**loimos*; cf. also the unreduplicating perfect form *liqui* from I.-E. \*(*le*)loik<sup>wa</sup> (Gr. *lēloipa*, Skt. *rirēca*). In half a dozen words the intermediate grade *oe* has been retained in Latin after an initial labial (*poena*, *foedus* etc.) if in the second syllable there is no *i* (cf. *punire* : *poena*). It is possible that this *oe* was artificially maintained in Latin orthography on the analogy of *ae* beside *ai* (Stolz-Leumann, § 58).

Of the short *u*-diphthongs, *au* has been retained in initial syllable, e.g. Lat. *augeō* : Gr. *aúxō* : Skt. *ójah*.—I.-E. *eu* became *ou* in primitive Italic (see inscriptional *ab-doucit*) and then *ū* in Latin; thus Lat. *dūcō* "I lead" : Goth. *tiuha*. Between *l* and Latin labial however the primitive Italic *ou* (< *eu*) became *oi*, which further changed into *ei* > *ē* > *ī*; thus Lat. *liber* "free" < \**louber* :

Gr. *eleútheros*. Lat. *eu*, as in *seu neu neuter*, is always of secondary origin (Sommer, § 65). I.-E. *ou* may be seen unchanged in Old Lat. *loucom* : Skt. *lókaḥ*. Later however it became *ū*, thus Lat. *clūnis* : Skt. *śróṇiḥ*.

I.-E. long diphthongs have coincided with short ones in Latin and need not be discussed separately. But it is necessary to say a few words about the representation of Indo-European sonant nasals and liquids. I.-E. *ṛ* and *ṛ̥* appear normally as *en* and *nā* respectively in Latin ; thus I.-E. *\*ṛ̥-tó-s* : Lat. *tentus* : Skt. *tatáḥ* : Gr. *tatós* and I.-E. *\*ḡ-ṛ-tó-s* : Lat. *gnātus* (class. *natus*) : Skt. *jātáḥ*. Similarly I.-E. *m̥* has normally developed into *em* (assimilated to *en* before dentals) as in Lat. *centum ventum* : Skt. *śatám gatám* from I.-E. *\*k̥m̥tóm* *\*gʷm̥tóm*. But there is no sure example of I.-E. *m̥* in Latin. I.-E. *ṛ* and *ṛ̥* normally appear as *or* and *rā* ; thus I.-E. *\*ṛtós* *\*ḡṛ̥nóm* : Lat. *ortus grānum* : Skt. *ṛtáḥ jīrṇám*. Similarly I.-E. *l̥* and *l̥̥* normally appear as *ol* and *lā* in Latin ; thus I.-E. *\*m̥ldi-* (Skt. *m̥ḍiḥ*) became *\*moldz(is)*, then *mollis* in Latin, and I.-E. *\*u̥l̥nā* (Skt. *úrṇā*) became in Latin *\*ulāna* then *lāna*.

The normal representation of Indo-European vowels in Latin as described above would however seem to be very abnormal from the stand-point of Latin, for due to various disturbing influences even in the initial syllable the normal representatives undergo disconcerting modifications. Some at least of these disturbing influences and their effects therefore have now to be discussed.

Before antevocalic *r* < *z* < *s* the vowel *i* becomes *e* ; thus I.-E. *\*sī-sō* > *\*sīzō* > *sērō*. Before dentals *-ri-* > *-ṛ-* > *-er-* ; thus I.-E. *\*tris* (=Skt. *triḥ*) > *\*tṛs* > *\*ters* > *\*terr* > *ter*.—The same *r* out of *s* changes an immediately preceding *u* to *o*—as in Lat. *foret* < prim. Ital. *\*fusēd*. That in Lat. *nurus* (: Skt. *snusā*) the *u* of the first syllable remains unchanged is due to the influence of the *u* of the second. Between *l* and labial, *u* became the middle vowel *ü*, expressed sometimes by *i* and sometimes by *u* ; thus Lat. *libet lubet* : Skt. *lúbhyati*.

The changes of *e* are multifarious. It becomes *i* before the guttural nasal ; thus I.-E. *\*peṇkʷe* > Lat. *quīnque* (assimilation of *p* of the first syllable to the *qu* of the second and secondary protraction of *i*) : Skt. *pāñca*. This narrowing of *e* to *i* takes place also before the secondary *n* (written *g*) derived from *g* before *n* ; thus *lignum* (pronounced *linnum*) from *legō* "I collect", and *dignus* (pronounced *dinⁿus*) "worthy" from *\*degnos* < *\*decnos*. The same narrowing of *e* to *i* may be observed also before *mb*, as, for instance, in Lat. *limbus* < *\*lembhos* : Skt. *lāmbhate*. I.-E. *sye-* before consonant becomes *\*syo-* > *\*so-* ; thus I.-E. *\*syesōr* (Skt. *svāsā*) became *soror* in Latin, and I.-E. *\*syeḱuros* (Skt. *śvāsuraḥ*) became Lat. *socrus*. I.-E. *\*pekʷō* (Skt. *pácati*) at first became *\*quequō* through assimilation in Latin, and then further

changed to *coquō* "I cook". Before guttural *l* (i.e. *l* before *o*, *u*, *a*), *e* became *o*; thus I.-E. *\*k<sup>w</sup>elō* (Skt. *cārati*) became *colō* "I cultivate"; on the analogy of *colō* then in second and third person sg. *colis colit* (instead of *\*quelis \*quelit*), much as Skt. *pācāmi* (instead of *\*pākāmi*) after *pācasi pācati*. I.-E. *-eu-* became *-ou-* already in primitive Italic; thus I.-E. *\*neuos*: Gr. *né(v)os*: Skt. *nāvah*: Lat. *novus*. It should be remembered therefore that Lat. *eu*, as in *brevis levis*, is always of secondary origin.

I.-E. *o* changed to *u* before the *n* of *-nc-* and *-ngu-*; thus I.-E. *\*onkos* "hook": Gr. *ónkos*: Skt. *aṅkāḥ*: Lat. *uncus*, I.-E. *\*ong<sup>w</sup>is*: Skt. *añjih*: Lat. *unguis*. This change may be observed in some cases also before *m*; thus I.-E. *\*omesos* "shoulder" (Skt. *aṁsāḥ*): Lat. *umerus*. Before *l*+consonant *o* became *u* as in *sulcus* "furrow"=Gr. *holkós*. After *v* however, *o* in this position remained unchanged till the end of the Republic; thus *volnus* (Skt. *vraṇám?*)—which later became *vulnus* "wound". Lat. *ursus* < *\*orcsos* < *\*ṛk̑sōs* (Gr. *árktos*, Skt. *ṛkṣāḥ*) suggests the same change also before *r*+consonant. In course of the second century B.C., *vo* became *ve* before *r*, *s*, *t* (Sommer, § 57.2); thus *vorsus* (Skt. *vṛttāḥ*) *voster volō* became *versus vester vetō*.—I.-E. long *ō* became *ū* in monosyllabic words; thus *\*bhōr* (Gr. *phōr*) became *fūr* "thief".

I.-E. semivowels have on the whole been much better preserved in Latin than the vowels; thus I.-E. *\*iek<sup>w</sup>yt*: Gr. *hēpar*: Skt. *yākyt*: Lat. *iecur*, and from I.-E. *\*iudh-* we have Skt. *yudh-* and Lat. *iubeō* "I order"; cf. also Lat. *iuvenis*: Skt. *yūvan-*. Intervocalic *ɨ* was dropped, as in Lat. *trēs*: Skt. *trāyaḥ* < I.-E. *\*treɨes*, Lat. *aeris*: Skt. *dyaś-aḥ* < I.-E. *\*ates-os*. Intervocalic *ɨ* where found in Latin has always the value of *u* derived mostly from *-gt-* (as in *maior* = *maɨor* < *\*mag-ɨōs*: Skt. *mah-*) but also from *-dɨ-* (as in *peior* "worse" from *\*ped-ɨōs*: Skt. *pád-ya-te*). Though not in Old Latin, initial *dɨ* later became *ɨ* as in the vocative form *Iuppiter* (for *Jū-piter*) < I.-E. *\*dieu pter*: Skt. *dyaúṣ pītā*; the Lat. ablative form *Iove* = the Skt. locative form *dyávi*. Normally however *ɨ* after consonant became syllabic (Sommer, § 93.2); thus I.-E. *\*medhɨos*: Skt. *mádhyah* but Lat. *medius* (trisyllabic).

I.-E. *ɥ* is normally retained, as in Lat. *vōx videō* corresponding to Skt. *vāk vid-*, but initial *ɥ* disappears before *l* and *r*; cf. I.-E. *\*ɥl<sup>w</sup>nā*: Skt. *ārṇā*: Lat. *lāna*, and Lat. *rādix* "root" from *\*vrādix* (cf. Goth. *waúrts*). The sound-groups *-oɥi-* and *-oɥe-*, of which the *ɥ* may go back to I.-E. *g<sup>w</sup>*, have developed in various ways in Latin; thus *mōtus vōtus tōtus nōnus* from *\*movitos \*vovitos \*tovitos \*novenos*. In other cases however we find *ū*; thus *nūdus* "naked" < *\*noɥ(o)dos* < *\*nog<sup>w</sup>odos* (Goth. *naqaḥs*, Skt. *nagnāḥ*) and *nūndinae* "the ninth day" < *\*noɥen-dinai*. But in non-initial syllables *oɥ*, as well as *aɥ* and *iɥ*, developed before vowels into *uɥ*, which in script however appears as *u*



excepting before *i*; thus I.-E. \**uidhegā* (Skt. *vidhāvā*) became Lat. *vidua* over \**vidova*, Lat. *dēpuviō* "I strike" from \**dēpauiō* (Gr. *paio* "I beat"), Lat. *trīduum* "period of three days" from \**trīdiuom*. Between similar vowels *u* is dropped as a rule; thus *sīs* < *sī vīs* "if you please", and *vīta* < \**uiuitā* (Skt. *jīvita*).—Always after *t*, but also after other consonants, *u* was vocalised; thus I.-E. \**k<sup>u</sup>etūōr-* (Skt. *catvārah*) became Lat. *quattuor* (three syllables). Since *u* was dropped before *o* as in \**dēos* from *dēyos* (see supra), I.-E. \**ekyos* (Skt. *dśvāh*) became \**ekos* in Latin (cf. inscriptional *ecus*); the form *equos* (from which *equus*) owes its *u* to the analogy of forms like *equi* in which the *u* was retained phonologically (Sommer, § 94. 8).

The liquids *r* and *l* have been retained unchanged in Latin; cf. Lat. *arātrum* "plough": Gr. *árottron*: Skt. *arītram*, and Lat. *clūnis* "buttock": Lith. *szlaunis*: Skt. *śróṇih*. As in modern Russian, *l* in Latin was velar (before *a*, *o*, *u*, and consonants) or palatal (before *e*, *i* and in *ll*); before the velar *l* vowels were rounded (thus *volō* from \**velō*), but before the palatal *l* vowels remained unchanged (thus *velin velle* from the same verb). In Romance languages the velar and palatal *l* have developed in different ways.—The nasals *m* and *n* have on the whole been retained unchanged; cf. Lat. *māter novos* (< \**nevos*): Skt. *mātā nāvah*. Before *s*, however, *n* disappeared very early, protracting the preceding vowel in compensation. Even Cicero is said to have pronounced *forēsia hortēsia* instead of *forensia hortensia*. There are interesting cases of inverse writing in which *n* is used before *s* merely to indicate that the preceding vowel is long; thus inscr. *thensauvo* = Gr. *thēsauros*.

Now we come to the occlusives. Of the ancient Indo-European dialects of Italy it may be said on the whole that the pure surds and sonants were preserved in them, but the sonant aspirates coincided with the surd aspirates and along with them developed into surd spirants already in primitive Italic. Subsequently they underwent various changes in the different dialects.

I.-E. *p* may be observed in Lat. *pater pēs septem*: Skt. *pitā pad- sapta*.—I.-E. *b*, which was a very rare sound, may perhaps be found in Lat. *bucca* "puffed out cheek": Skt. *bukkārāh*.—Initially I.-E. *bh* became *f* (cf. Lat. *ferō*: Skt. *bhārāmi*, Lat. *frāter*: Skt. *bhrātā*), but otherwise *b* (e.g. Lat. *lubet*: Skt. *lubh*); cf. also I.-E. \**albhos* "white": Gr. *alphós*: Lat. *albus*: Umbr. *alfu*. Lat. *spargō spernō* may be connected with Skt. *sphātrjati sphurāti*, but the labial in them need not have been aspirated originally, for contact with *s* often induces aspiration in Sanskrit (cf. Lat. *spūma*: Lith. *spāine*: Skt. *phénah*).—The unaspirated dentals have been well preserved in Latin; cf. Lat. *trēs pater est*: Skt. *trāyah pitā āsti*, and Lat. *dōnum edere*: Skt. *dānām ādmi*. As *d* and *l* are very similar sounds, Latin often shows *l* instead of *d*;

thus from I.-E. \**daiuer-* "brother-in-law" we have Skt. *devār-*, Gr. *dāēr* (< \**dai-vēr*), but Lat. *lēvir* (< \**laever*). In Latin, *l* and *d* alternate sometimes in one and the same word; thus *lingua*: *dingua* "tongue", *lacrima*: *dacruma* "tear", etc. In Middle Indo-Aryan, *d* often became *l* through *ḍ*; in Latin however the process of change was quite different.—Examples like Lat. *rota* "wheel": Skt. *rāthaḥ* do not necessarily prove the change of I.-E. *th* to *t* in Latin, for there is nothing to prove that the aspiration of the dental in the Sanskrit form was not a later development.—I.-E. *dh* has developed into three distinct sounds under different circumstances. Initially it became *f*; thus I.-E. \**dhūmós*: Skt. *dhūmāḥ*: Lat. *fūmus*. Medially it became *ḍ*; thus Skt. *mādhyaḥ* *vidhāvā*: Lat. *medius* *vidua*. In the neighbourhood of *r* it became *b*; I.-E. \**urdhom* (Engl. word): Lat. *verbum*, Skt. *ūdhar*: Lat. *ūber*.

Of Indo-European palatals, *ḱ* normally appears in Latin as *c* (always pronounced *k*); thus I.-E. \**ḱmtóm*: Skt. *śatám*: Lat. *centum*; from I.-E. \**ḱens-* come Lat. *cēnseō* and Skt. *śámsati*; cf. also I.-E. \**deiḱ-*: Lat. *dīcō*: Skt. *disāti*, etc.—I.-E. *ǵ* in the same way has developed into *g* (always pronounced hard) in Latin; thus from \**ǵen-* Lat. *genus*: Skt. *jānaḥ*, from \**ǵṛnom* Lat. *grānum* and Skt. *jīrṇám*.—I.-E. *ǵh* became (over *χ*) *h* in initial position before vowel; thus from I.-E. \**ǵheṛem-* Lat. *hiems* "winter": Gr. *kheĩma*: Skt. *himāḥ*. So also medially between vowels; thus from I.-E. \**ǵeǵh-* Lat. *vehō*: Av. *vazaiti*: Skt. *váhati*. Before and after consonant however *ǵh* developed into *g* (cf. Lat. *gliscō* "I blaze up": O.H.G. *glei-mo* "glow-worm": Gr. *khliō*: Lith. *zleà*; Lat. *fungō* "I frame": Gr. *teikhos* < \**thrikhos*: Skt. *deh̥t* < \**dheh̥t* from I.-E. \**dheiǵh-*). I.-E. *sḱh* has developed into *sc* in Latin; cf. Lat. *scindō* "I split": Skt. *chid-* from I.-E. \**sḱhid-*.—As for the pure velars, we have *k* in Lat. *cruor* (: Gr. *kréas*: Skt. *kraviḥ*), *g* in Lat. *augeō* "I increase" (Skt. *ójah*: Goth. *auka*), and *gh* as *h* in Lat. *hostis* (< I.-E. \**ghostis*: Goth. *gasts*: O. Ch. Sl. *gostŭ*) and as *g* in Lat. *longus* (< \**dlonghos*: O. Ch. Sl. *dlŭgŭ*: Goth. *laggs*).

I.-E. labio-velars developed into guttural+*u* in primitive Latin. Thus I.-E. *k<sup>w</sup>* > *qu*, cf. Lat. *quattuor*: Gr. *téttares*: Skt. *catvārah*, Lat. *sequor*: Gr. *hépomai*: Skt. *sácate*. After nasal, I.-E. *g<sup>w</sup>* appears as *gu* as in *unguen*: Skt. *añjih*, but as *v* in all other positions; cf. I.-E. \**g<sup>w</sup>iyo-*: Skt. *jivāḥ*: Lat. *vīvos*, I.-E. \**nog<sup>w</sup>odhos*: Skt. *nag-nāḥ*: Lat. *nūdus* < \**novodos*, I.-E. \**g<sup>w</sup>em-* (: Gr. *bainō*): Lat. *veniō*: Skt. *gam-*.—Initial I.-E. *g<sup>w</sup>h* became *f* in Latin; thus Lat. *formus*: Gr. *thermós*: Skt. *gharmāḥ*. Otherwise however *g<sup>w</sup>h* became *v* (but *g* after *n*); thus I.-E. \**yo<sup>w</sup>g<sup>w</sup>heło-*: Lat. *voveō* "I vow": Skt. *vāghdt-* "prayer", I.-E. \**dheg<sup>w</sup>h-*: Skt. *dāhati* < \**dhaghati*: Lat. *foveō* "I keep warm". From I.-E. \*(*s*)*neig<sup>w</sup>h-* (Goth. *snaiws* "snow") we have *ninguit* "it

snows" with the nasal infix; but as the labial element of labio-velars is lost in Latin before consonants, we have from the same base *nix* "snow" in nom. sg.; hence also *coctus* "cooked" from *coquo* (< \**pekʷō*), and *socius* "associate" (< \**soḱʷios*) from *sequor* (Skt. *sácate*).

Of the spirants let us mention that I.-E. *s* in intervocalic position became *z* already in primitive Italic and further changed to *r* in Latin-Faliscian and Umbrian; thus \**ausōsā* (Skt. *uṣāḥ*) became *aurōra* in Latin. An original *r* in the following syllable however prevents this rhotacism; hence *miser*, *caesar* etc. An intervocalic *s* is often in reality *ss*; thus *causa*=*saussa*. Non-intervocalic *r* instead of *s* is due to analogy; cf. *honor arbor* after the genitive forms *honoris arboris*.

(To be continued)

# MISCELLANEA

( 1 )

## AN UNNOTICED REFERENCE TO VIJAYANAGARA

Robert Sewell, while narrating the history of the arrival of the Portuguese in India, writes thus :—"Da Gama sailed on July 8, A.D. 1497, and arrived close to Calicut on August 26, 1498. . . . Da Gama returned shortly after to Portugal. Early in 1500 A.D. Cabral took out another and larger fleet, and arrived at Calicut on September 13th. He at once quarrelled with the Samuri, and instead of peaceful commerce we read of attacks and counter-attacks in such sort by the Portuguese as irretrievably to alienate the natives of the country. A few Europeans, however, settled in that tract, and amongst them Duarte Barbosa, the celebrated chronicler of the time."<sup>1</sup>

Of the three Portuguese travellers mentioned above we select Cabral. Sewell has nothing more to say about Cabral than what he has written above. But the recently published account of the voyages of Cabral,<sup>2</sup> however, contain a very short but interesting description of Vijayanagara, which it is the object of this paper to bring to the notice of students of Indian history. Pedro Alvares Cabral was a famous Portuguese mariner of his time. He undertook his voyages to Brazil and India in the early days of 1500. In the course of his voyage he touched the harbour of Cochin, where his fleet was to be loaded with spices. While here he received two Christian priests from the neighbouring settlements of Cranganore. They belonged to the Syrian Church. But they had sent word to Cabral asking permission to be taken to Portugal, so that from there they might go to Rome and Jerusalem. This request was readily granted.

Of the two Syro-Malabar Christian priests one was Priest Matthias who, however, died either on the voyage or soon after his arrival in Portugal. His brother was Priest Joseph with whom we are here concerned. Priest Joseph reached Lisbon safely, and was well received by the king. He remained in Portugal for six months, and then was sent with a companion to Rome where he had an audience with the Pope. From Rome he went to Venice, whence he returned to India carrying greetings from the Pope.<sup>3</sup>

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1. Robert Sewell, *A Forgotten Empire (Vijayanagara)*, p. 116 (London, 1924).

2. *The Voyages of Pedro Alvares Cabral to Brazil and India*. The Hakluyt Society, Second Series. No. lxxxi. Issued for 1937. Translated from contemporary documents and narratives by William Brooks Greenlee. London. MCMXXXVIII.

3. Greenlee, *ibid.*, p. 95.

Concerning Priest Joseph and what he saw in India, we have the following in the account of the voyages of Pedro Alvares Cabral :—

“Up to this point we have told about all the country which is found along the sea, beginning at Ormus, as far as Cranganore and the kingdom of Cuchin. We shall now tell about the regions inland. Towards the mountains and about three hundred miles distant from the sea is to be found a very powerful king, who is named King Narsindo, and he has a great city with three circuits of walls. It is called Bisnegal (Bisnagar). This King, as Priest Joseph told, he has seen with his own eyes, when he goes with an army against his enemies, he takes with him eight hundred elephants, four thousand horses, and innumerable foot soldiers, and he says that his camp from south to north is thirty miles long, and from west to east, of equal breadth. Consequently it may be supposed that his kingdom is very extensive, and furthermore, according to what Priest Joseph says, it is three thousand miles around. Its faith is idolatrous. Now we turn to the region next to the sea, and first begin from Cuchin towards the east and India.”<sup>4</sup>

Our object is to identify “the king Narsindo” mentioned above, and to estimate the value of the description of Vijayanagara as given in the travels of Pedro Alvares Cabral. In order to do this we have to ascertain when exactly Priest Joseph was in Vijayanagara. According to the translator and editor William Brooks Greenlee, Priest Joseph “may have been the Syro-Malabarian parish priest of Cranganore, ‘who came from Portugal’ in 1518.... At any rate, the detailed account of South-west India which was obtained from him and is here published was probably printed either in Rome or in Venice prior to 1505, since extracts were incorporated in the so-called letter of Dom Manuel to the king of Castile, which was printed at Rome in that year.”<sup>5</sup>

It is evident, therefore, that there is some uncertainty as to the precise year when Priest Joseph visited Vijayanagara. Assuming that his account was printed before 1505, let us proceed with the question of the identity of the Vijayanagara king mentioned by him. The year 1505 falls within the reign of Vira Narasimha (1504-1509 A.D.).<sup>6</sup> There is no doubt that this monarch was also called Nṛsimha.<sup>7</sup> But “king Narsindo” mentioned by Priest Joseph cannot be identified with Vira Narasimha. For if it is assumed that the account of Priest Joseph was printed before 1505, then, we have to suppose that that Syro-Malabar priest saw the Vijayanagara king

4. Greenlee, *op. cit.*, pp. 112-113.

5. *Ibid.*, p. 96.

6. Rice, *Mysore and Coorg from the Inscriptions*, p. 118,      7. *Ibid.*

some five or ten years before 1505. That is to say, it would not be wrong to place the visit of Priest Joseph to Vijayanagara prior to 1500, when Vīra Narasimha's father Narasa was ruling (1496-1503 A.D.).<sup>8</sup>

Between father and son there was a great difference. It is true that the manner in which the famous general Narasa became monarch is still a knotty problem in Vijayanagara history. But it seems certain that there was civil war in Vijayanagara in about 1496 between the last worthless representative of the Sāluva line, Immaḍi Narasinga Oḍeyar (1493-1496 A.D.), and General Narasa resulting in the final triumph of the latter. Opinion is divided as to the epithet posterity should give to General Narasa—a rebel or a constitutional monarch. According to some, General Narasa became monarch after murdering Immaḍi Narasinga Oḍeyar;<sup>9</sup> but others maintain that the nobles deposed Immaḍi Narasinga Oḍeyar and placed General Narasa on the throne.<sup>10</sup> The latter view is based on the account of Fernão Nuniz, who writes thus:—"At last the King believed, and seeing now how great was the danger, he resolved to flee by the gates on the other side; and so he left his city and palaces, and fled. When it was known by the captain that the King had fled he did not trouble to go after him, but took possession of the city and of the treasures which he found there; and he sent to acquaint his lord, Narsyngua. And after that Narsyngua was raised to be king."

In the next statement of Nuniz we have the clue to the solution of the problem of Priest Joseph's assertions. Nuniz continues thus:—"And as he (*i.e.*, Narsyngua) had much power and was beloved by the people, thenceforward this kingdom of Bisnaga was called the kingdom of Narsyngua."<sup>11</sup>

According to Nuniz, therefore, Narasa was beloved by the people; and it was after him that the kingdom of Bisnagar came to be known as the kingdom of Narasinga. Nuniz further informs us that Narasa reigned for forty years—a statement that is not at all borne out by epigraphic evidence which gives him only seven years of rule<sup>12</sup>; that he extended the Vijayanagara dominions by reconquering the territories lost in the times of his predecessors; that "at his death (he) left all the kingdom in peace"; and that he was a great promoter of foreign trade, especially in horses.<sup>13</sup>

Priest Joseph's description obviously applies to such a monarch, whom he aptly styles as "a very powerful king", and as one who "goes

8. Rice, *op. cit.*, p. 118.

9. Rice, *ibid.*, p. 117.

10. Sewell, *op. cit.*, p. 108.

11. *Ibid.*, p. 307.

12. Rice, *ibid.*, p. 118.

13. Sewell, *op. cit.*, p. 307.

with an army against his enemies" taking with him 800 elephants, 4,000 horse, and innumerable foot. Priest Joseph could not have referred to Vīra Narasimha, whose reign was shorter than that of his father, who spent most of his time in making gifts to temples and holy places in the Empire, and whose reign was devoid of any military glory.<sup>14</sup>

Cabral's account is, therefore, important because it embodies the first description of Vijayanagara by an Indian Christian eye-witness from south-western India. One or two details in it are worthy to be noted. In the account of Cabral we are told that king "Narsindo" had "a great city with three circuits of walls." These three circuits of walls were also noticed by Varthema, 'Abdur Razzāk, and Paes.<sup>15</sup> Like Priest Joseph, Varthema saw the Vijayanagara king who, according to Sewell, was Narasimha.<sup>16</sup> But since we know that Varthema visited Vijayanagara between the years 1502 and 1508,<sup>17</sup> we have to assume that he came to Vijayanagara either in the closing years of king Narasa's reign or in the reign of Vīra Narasimha.

There is another detail in the account of Priest Joseph and in that of Varthema which requires a passing notice. The Syro-Malabar Christian, as we have already remarked, tells us that the Vijayanagara monarch had under him 800 elephants, 4,000 horse, and a huge infantry. That is to say, king Narasa, whom Priest Joseph "has seen with his own eyes", commanded a powerful contingent of elephants, a very large infantry, and only 4,000 horse. But when Varthema came to Vijayanagara soon after, he saw a smaller contingent of elephants but a larger number of horse. We are told by Varthema that the Vijayanagara monarch "keeps up constantly 40,000 horsemen and 400 elephants."<sup>18</sup> We are not in a position to explain this disparity in the number of the different contingents mentioned by Priest Joseph and Varthema. All that we may do is to suppose that in view of the growing strength of the Muhammadans in the north, the Vijayanagara monarch saw the desirability of reducing the number of elephants and of increasing that of horses. Whatever that may be, there seems to be little doubt that of the two Christian travellers, Priest Joseph and Varthema, the former was earlier in point of time, and that he was probably the only Indian Christian visitor to the Court of the celebrated Narasinga, the founder of the Tuluva dynasty of Vijayanagara.

B. A. SALETORÉ

14. Rice, *op. cit.*, p. 118.  
15. Saletore, *Social and Political Life in the Vijayanagara Empire*, I, p. 123 (Madras, 1934).

16. Sewell, *ibid.*, p. 118.

18. Sewell, *ibid.*, p. 118.

17. Saletore, *ibid.*, I, p. 45.

( 2 )

## ON SOME WORDS IN THE INSCRIPTIONS OF AŚOKA

I. *Bhāge amñe* in R. E. VIII.

The last sentence of Rock Edict VIII (Girnār version) reads :—  
 एसा भूय रति भवति देवानं पियस पियदसिनो राज्ञो भागे अंजे । The  
 passage भागे अंजे has been differently interpreted. Bühler and  
 other early writers take it to mean “in exchange for past pleasure.”  
 Apparently they Sanskritized the passage as भागे अन्ये । Lüders and  
 Hultzsch however think it impossible and point out that “in the  
 eastern dialect the two locatives would end in *asi*.” According to  
 Hultzsch,<sup>1</sup> भागे अंजे = Sanskrit भागः अन्यः means “second period.”  
 Bhandarkar<sup>2</sup> thinks that भागे अंजे would mean “unusual luck, extra-  
 ordinary fortune.” None of the above interpretations appears to be  
 quite satisfactory. I would like to suggest that भागे अंजे = Sanskrit  
 भग्नं अन्यत् (= अपरसुखानि भग्नानि ) । The word भाग can be derived from  
 Sanskrit भग्न (from the root भञ्ज्) through the intermediate form भग  
 (cf. also Hindi भागना ); and of the numerous meanings of the word  
 we may take note of “checked,” “marred,” “defeated,” etc. What  
 Aśoka means to say is that from the time of his first *Dharma-yātrā*  
 (= *Tīrtha-yātrā*) to Sambodhi (= Bodh Gayā)<sup>3</sup> pilgrimage to holy  
 places became the chief pleasure for the king, while all other pleasures  
 were thought to be insignificant in comparison with that.<sup>4</sup>

1. *C.I.I.*, I, p. 15.

2. Aśoka, 2nd ed., p. 322.

3. Sambodhi and Mahābodhi mean the same thing, “the great enlighten-  
 ment (of Lord Buddha),” and in a secondary sense “the place where the great  
 enlightenment was attained.” That Bodh Gayā was also called Mahābodhi  
 is proved beyond doubt by the Bodhgayā temple inscription of Dharmapāla.Cf. श्रेष्ठानामेव मल्लानां महाबोधिनिवासिनां (*Gaudalekhamālā*, p. 31). The tree  
 under which the great enlightenment was attained has likewise been called  
 Sambodhi in the *Kaliṅgabodhi Jātaka* (Bhandarkar, *op. cit.*, p. 321).4. The suggestion with which Dr. Sircar concludes his note is welcome.  
 But the argument by which he arrives at the conclusion is open to dispute.  
 According to the Girnār dialect, *bhāge* must be equated with a neuter word,  
 such as Sk. *bhāgyam*, and not with *bhāgaḥ*; cp. *paṭibhāgo* in R. E. XIII



II. *Ithihakha-mahāmāla* in R. E. XII.

The duties of the officer called *Ithihakha-mahāmāla* (= *Stryadhyakṣa-Mahāmātra*) in Rock Edict XII (Girnar version) have never been satisfactorily determined. There can however be no doubt that the *Stryadhyakṣa-mahāmātras* are the same as the *Dārādhyakṣa* or *Stryadhyakṣa* of the *Mahābhārata*.<sup>5</sup> The following verses would clearly point to the duties of these officers :—

ततो वृद्धा महाराज योषितां रक्षिणो नराः ।

राजदारानुपादाय प्रययुनगरं प्रति ॥

*Salyaparva*, 29. 63.

ततो दुर्याधनामात्याः साश्रुकण्ठा भृशानुराः ।

राजदारानुपादाय प्रययुनगरं प्रति ।

वेत्तव्यासक्तहस्ताश्च दाराध्यक्षा विशाम्पते ॥

शयनीयानि शुभ्राणि स्पर्द्धयास्तरणवन्ति च ।

समादाय ययुस्तूर्णं नगरं दाररक्षिणः ॥

आस्थायांश्चतरीयुक्तान् स्यन्दनानपरे जनाः ।

स्वान् स्वान् दारानुपादाय प्रययुनगरं प्रति ॥

*Ibid.*, verses 68-70.

स्त्र्यध्यक्षांश्चाववीद्राजा यानानि विविधानि मे ।

सज्जीक्रियन्तां सर्वाणि शिविकाश्च सहस्रशः ॥

*Āśramavāsikaparva*, 22, 20.

द्रौपदीप्रमुखाश्चापि स्त्रीसंघाः शिविकायुताः ।

स्त्र्यध्यक्षगुप्ताः प्रययुर्विसृजन्तोऽमितं वसु ॥

The above verses appear to prove that *Stryadhyakṣas* or *Dārādhyakṣas* were bigger officers under whom were placed the *Dārarakṣins* or

(Girnar text): *tadōpayā eṣā bhūya rati bhavati; devānaṃpiyasa bhāge amñe* "From this undertaking arises greater delight. The other is the portion of king Piyadasi, Beloved of the Gods." Pali *upaya* means "an undertaking."—B. M. B.

5. H. C. Raychaudhuri, *Political History of Ancient India*, 4th ed., p. 262.

*Yoṣidrakṣins*.<sup>6</sup> The former is possibly called *Amātya* in one of the verses quoted above. Their duty was to guard the ladies of the royal harem, especially when the latter were out of the harem. They were also in charge of conveyances. The *Dārarakṣins* were responsible for the conveyance of beddings and other articles to be used by the ladies. They were generally old men. The verses prove that none of the above designations refers to female officials.

### III. *Kaṭābhikāra* in R. E. V.

कताभीकारेसु (Girnār) कटाभिकाले (Kālsī and Dhauli), किटाभिकारो (Shāhbāzgarhī) or कटभिकर (Mānsēhrā) = Sanskrit कृताभिकार, कृताभीकार is found in Rock Edict V. It is said that those who were कृताभिकार would get अपलिबोध (= अवन्धन). The word is translated "victim of a trick" (Senart), "overwhelmed by misfortune" (Bühler) and "bewitched (incurably ill ?)" (Hultsch). A कृताभिकार prisoner appears to me to have been one whose crime was due not to his own initiative, but to the insinuation of interested persons.

### IV. *Duāhale* in S.R.E. I.

The word दुआहले is found in the Separate Rock Edict I (Dhauli line 16 and Jaugada line 8). It has been interpreted by some scholars as द्वि = आहरः = द्वाहारः, "producing two (effects)" and by others as दुर् + आहरः = दुराहरः, "(service) badly rendered." The second interpretation however can be tacitly given up, as the language of the Edicts permits only the form दुलाहले for दुराहरः। दुआहले = द्वाहारः 'seems to me to indicate द्विभावेन सम्पादनं = द्विमतस्वतया सम्पादनं = ऐकाग्र्यहीनतया सम्पादनं, i.e. performance of one's duty not in a single way or with one mind, that is to say, without proper attention and eagerness.

DINES CHANDRA SIRCAR.

6. It may also be suggested that the *Dārādhyakṣas* and *Dārarakṣins* were the same. The text however appears to indicate that they were different. Each lady of the harem had a *Dārarakṣin* for her protection.

( 3 )

# SOME DATES OF THE KUṢĀṆA KHAROṢṬHĪ RECORDS AND THEIR BEARING ON THE INITIAL YEAR OF THE KUṢĀṆA ERA.

It has been supposed by scholars that the initial year of the Kuṣāṇa era can be determined with the help of a few recorded *Kuṣāṇa* dates mentioned along with some *Nakṣatras*. Various scholars have tried to work out these dates with a view to find out the initial year. Out of the dated Kuṣāṇa records only two may be taken into consideration as they alone mention the name of the Nakṣatras. Thus the Zeda inscription<sup>1</sup> of the year 11 of king Kanīṣka mentions *Uttara-phālguna* Nakṣatra on the 20th day of the month of Āṣāḍha (*Sam 10 1 Asadasa masasa di 20 Uttaraphalgunā*). The Uṇḍ inscription<sup>2</sup> of the year 61 mentions *Pūrvāṣāḍha* Nakṣatra on the eighth day of the month Caitra (*Sam 20 20 20 1 Cetrāsa maha(sa)sā divase athamī di 4 4*).

These astronomical dates have been worked out by many eminent scholars. Thus Prof. Sten Konow through the help of his Dutch friend Von de Wijk came to the conclusion that the Kuṣāṇa era was started in the year 134 A.D.<sup>3</sup> Later on Prof. Konow changed his views and fixed the initial year of the Kuṣāṇa era in 128-29 A.D. Here he points out "Dr. Von Wijk had done so (*Acta Orientalia* iii. pp. 83 ff. ; v. pp. 168 ff.) and arrives at the result that the only set of years within the limits with which we can reasonably reckon, which fulfils the conditions is Kaliyuga 3240 for the Zeda and 3290 for the Uṇḍ inscription. The initial year of the Kuṣāṇa era would accordingly be A.D. 128-29<sup>4</sup>." Besides Prof. Sten Konow, so far as I know, three Indian scholars have tried to fix the initial year of the Kuṣāṇa era on the basis of these astronomical data. Mr. Haricharan Ghosh fixed at 89 A.C. (expired) for the Zeda inscription, that is to say, the Kuṣāṇa era, according to him was started in 78 A.C. (expired) or 79 current. He however held that Kanīṣka started the Śaka era.<sup>5</sup> Later on Mr. Dharendra Nath Mukherjee, published his own calculations of these dates along with a few others which need not be considered here, and came to the conclusion that the Kuṣāṇa era should

1. Sten Konow : *Corpus Inscr. Ind.*, Vol. II, Pt. I, p. 142.

2. *Ibid.*, p. 170. 3. *Indian Historical Quarterly*, Vol. II, 1926, p. 180.

4. *Corpus Inscr. Ind.*, Vol. II, Pt. I, p. xciii.

5. *Indian Historical Quarterly*, Vol. IV, 1928, p. 764.

be identified with the Vikrama era of 57 B.C.<sup>6</sup> Recently I had occasion to discuss these astronomical dates with Mr. P. C. Sen Gupta. He very kindly informed me that according to his calculations 80 A.D. is the initial year of Kuṣāṇa era. Unfortunately I had to do my own calculations and I have come to a different conclusion. This has led me to believe that these astronomical data are insufficient and they can be hardly relied upon. They cannot be a safe ground for building any theory as regards the initial year of the Kuṣāṇa era. They are fragile supports which are bound to collapse and bring down the entire structure which we may try to build up.

Through the help of Pandit Kedar Nathji in charge of Jaipur Maharaja's astronomical observatory, I was able to gather the following information regarding the movements of the Nakṣatras and the naming of the months from the *Aṣṭādhyāyī*. The following Sūtra may be taken into consideration :—

सास्मिन्पौर्णमासीति (४।२।२६) ।

इति शब्दात् संज्ञायामिति लभ्यते । पौषी पौर्णमासी अस्मिन् पौषो मासः ।

This means the month Pauṣa is that month in which the Puṣya *nakṣatra* must fall on the full-moon day. This phenomenon occurs every year. The month is called Pauṣa because on the full-moon occurs the *nakṣatra* Puṣya. Accordingly it can be pointed out in the case of other months also. The month Caitra is so called because the

Citrā *nakṣatra* falls on the full-moon day. There is another Sūtra :—

नक्षत्रेण युक्तः कालः ४।२।३ । पुष्येण युक्तं पौषमहः । पौषी रात्रिः ।

A day or night is said to be connected with an asterism when the moon is in conjunction with it during that time. Thus *Puṣya*, *Tiṣya*, *Maghā* &c. are lunar asterisms ; when the full-moon is in any of these asterisms then the necessary affix is added to the name of the asterism, in order to denote the month through the time of such a conjunction. We have accordingly come to the conclusion that the months are named after the Nakṣatras which fall on the full-moon day. Accordingly for our purpose we may say that *Āṣāḍha Nakṣatra* should be on the Full Moon day of the month of *Āṣāḍha* and *Citrā Nakṣatra* should be on the Full Moon day of the month of Caitra.

Now taking these two dates into consideration, we may see if on the 20th day of the Month of *Āṣāḍha* in the case of Zeda inscription we have *Uttaraphālguni Nakṣatra* and on the 8th day of the month of Caitra in the case of Uṇḍ inscription we have *Pūrvāṣāḍha Nakṣatra*.

Thus counting from Mūla next to Jyestha *Nakṣatra* which was on the full-moon day of the month of Jyestha, we find that the 21st *Nakṣatra* is Uttaraphālguna. Now according to the wording of the inscription the 20th *Nakṣatra* should have been Uttaraphālguna. This can however be explained by the fact that two consecutive *nakṣatras* may sometimes fall on the same day so that on the 20th day may have occurred the Uttaraphālguna *Nakṣatra*. Counting in the same way from the Hastā, next to Uttaraphālguna *Nakṣatra* which occurs on the full-moon day of the month of Phālguna, we find that the 8th *Nakṣatra* is *Pūrvaṣāḍha*. Thus it would not be safe to rely on these astronomical data mentioned above for establishing any theory as regards the initial year of the Kuṣāṇa era, as they are of an insufficient character.

BAIJ NATH PURI.

( 4 )

#### FURTHER EVIDENCE ON GODDESS NANA AS MOTHER GODDESS AMBĀ.

In the last issue of the Indian Culture Vol. VII, No. 2 I have contributed an article on Goddess Nana or Nanaia, the Mother Goddess in India and Western Asia. I have tried to show that this goddess Nana found on the Kuṣāṇa coins should be identified with the Mother Goddess Ambā or Ambitāmā of the R̥gvedic period. Her association with god OHPO or Śiva has been testified to by the classical references. In that paper it is also shown that the goddess Nana was also worshipped in Western Asia. I have now been able to acquire some more evidence in support of my conclusions and in this short note I shall try to show her relation with the Kuṣāṇa Kings also.

In my paper I pointed out that it first appeared to me that this goddess Nana was Durgā because on one coin of Sapaleizes the name Nanaia is associated with a lion (p. 266 ; ref. Whitehead, Catalogue, p. 168). But I further pointed out that according to Hindu Iconographical conceptions Ambā has also a lion as her Vāhana. Ambā is seated upon a lion and has three eyes. She has in one left hand a mirror. Her one right hand is held in the Varadā-pose. In the

other two hands she holds the shield (T. Gopi Nath Rao : Hindu Iconog. Vol. I, Part II, Page 358). 'Therefore, in order that Nana should be identified with Ambā it was natural that she should have a lion as her Vāhana. In the last paper I had pointed out only the name Nanaia appearing with the figure of a lion, but now I have been able to trace out a coin where Nana appears in person along with her Vāhana lion. This coin is in the British Museum Cabinet, and it was mentioned by Whitehead in the supplementary list of his catalogue of coins in the Punjab Museum (p. 214, No. 10, pl. 20). *Here Nana is actually seated on a lion.* What more do we require for proving that Nana must be identified with the Mother Goddess Ambā? It should now be accepted without a shadow of doubt that Nana or Nanaia was in fact the Mother Goddess Ambā whose association with OHPO=Śiva or Rudra is not only testified to by the numismatic evidence but is also corroborated by classical literary evidence.

As regards the relation of Nana to the Kuṣāṇas I have been able to trace out another Kuṣāṇa coin which clearly reveals that the Mother Goddess Nana or Ambā was actually worshipped by the Kuṣāṇa King Huviṣka. There is a coin noticed by Cunningham (Num. Chron., 1892, p. 118) and also by Whitehead (p. 207, No. 29 unrepresented type). This throws much light on the religion of the Kuṣāṇa King Huviṣka. From the Māt Inscription we learn that during his time the Devakula of his Pitāmahā, who was a 'Satya-dharmasthita', was repaired by a Bakanapati. We shall be able to throw more light on the religion of the Kuṣāṇas some other time, but here it may be pointed out that this particular coin shows that the Mother Goddess Nana=Ambā had become so much popular that the even the Kuṣāṇa King Huviṣka became a convert to her cult.

BAIJ NATH PURI.

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## REVIEWS

**THE ARCHAEOLOGY OF GUJARAT** (including Kathiawar), by Hasmukh D. Sankalia, Professor of Proto-Indian and Ancient Indian History, Deccan College Post-Graduate and Research Institute, Poona. Published by Natwar Lal & Co., Bombay. Price Rs. 15/-.

The present book is the revised edition of the thesis submitted by the author for the Ph.D. Degree in Archaeology of the University of London. Ever since the publication of the Memoir on Northern Gujarat and Kathiawar by Burgess and Cousens of the Archaeological Survey of India, Gujarat presented a scope for research work to the Indologists. A History of Gujarat from the year 850 B.C. to 1300 A.D. was begun by Pandit Bhagawanlal Indraji and completed by A. M. T. Jackson. It was published in the Bombay Gazetteer, Vol. I. Part I. (1896), with an introduction by Sir James Campbell. This work dealt entirely with the Political History of Gujarat, and no attempt was made to correlate the historical monuments with their epigraphs. The present book, as the author himself points out, is written with the intention of critically studying "the entire Archaeological material, prehistoric as well as historic, of Gujarat and Kathiawar especially with the view to correlating the monuments of both these regions with the epigraphs from the early historical times to the end of the 14th Century." In trying to attempt this, the author, as was natural, is not very successful. He himself admits that except in the case of a few monuments of the Cālukyas, definite relations could not be established between the monuments and the epigraphs.

The author takes us, as it were, in an aeroplane over the range of the history of Gujarat and shows us every part of it. This is alright so far as it goes, but one feels that the author should have also paused and considered some of the very important topics in greater detail. He says nothing e.g. about Gurjara and Ahir tribes that entered into Gujarat. He could have gone into greater details about the Lakuliśa sect as Lakuliśa was born at Karvan in Baroda; nor has he told us anything about the Nāgara Brāhmins and the Guhilots. This is just what might be legitimately expected of a thorough and critical scholar like Prof. Sankalia who is also an ethnologist.

Nevertheless, the author has handled the subject in a very systematic and scientific manner. The book is divided into five parts. The first part deals with the Geography of Gujarat and its history from the time of the Māuryas down to the time of the Cālukyas in the mediaeval period. Fresh chapters are allotted to different periods of history without breaking the chronological chain. In the second part the author deals with the Architecture and Sculp-



ture of Gujarat. The architecture of Ancient, Early Mediaeval and Mediaeval Period is treated in separate sections. But Gujarat had been the centre of Śaiva, Vaiṣṇava and Brahmā temples which drew votaries from close and far off quarters. On the basis of the ruins of the temples the author has summed up his conclusions. The chapter on Hindu Iconography is very well treated. Beside the Hindu Images, a good many images of Jain Tīrthaṅkaras have also been found. The next part deals with Epigraphy and Numismatics. In the chapter on Epigraphy he deals with all the matters relating to a record, namely, material, size, script, era, style and matter, mythical allusions, opening and closing formulæ, invocations and emblems. Among the coins, he has considered Pre-Greek, Greek, Kṣatrapa, Roman, Gupta and Traikūṭaka coins. The last part deals with Administration, Society, Religion and Gujarat's contribution to Indian Culture. We however sincerely hope that when each one of these chapters swells later on into a bigger Volume, he would go into greater details.

On the whole the book is well written and the subject systematically handled. There is an interconnectedness between the topics into which the book is divided and we obtain an excellent bird's eye view of Gujarat as a whole. The book is usefully furnished with maps and illustrations and is well got up.

D. R. BHANDARKAR.

ĀCĀRYA-PUṢPĀÑJALĪ VOLUME, in honour of Dr. D. R. Bhandarkar.

The above Volume which consists of articles contributed by admirers, friends and pupils was presented on the 12th July 1940 to Dr. D. R. Bhandarkar in appreciation of the most valuable services he has rendered to the Indian History and Culture and particularly for the services he has rendered to the cause of the Indian Research Institute by being an editor of its Journal 'Indian Culture'. Most of these articles are by distinguished scholars from all parts of India and Europe, prompted by the single desire of doing honour to his scholarship. The unique feature of this Volume is the range and variety of subjects selected by the scholars. If we just look at its table of contents we find the names of such world-renowned savants as Prof. H. Lüders, Prof. Sten Konow, Dr. Josef Strzygowski, Prof. A. B. Keith, Dr. Sir Ganga Nath Jha and Dr. A. K. Coomaraswamy. Another noticeable feature of this Volume is that it contains learned and thoughtful articles from the pens of three European ladies well-known in the realm of letters. With what feelings of regard most of these scholars have contributed their papers may be seen, e.g., from

the introduction to his article by Prof. Lüders. "The scholar to whom this Volume is dedicated," says the German savant, "has solved so many riddles connected with Indian epigraphy and history that I venture to offer him the following remarks on a difficult problem in the hope that he will either assent to them or arrive at a more satisfactory solution." Sir M. N. Mookerjee, who, as President of the Indian Research Institute, formally presented the Volume to Dr. D. R. Bhandarkar, rightly admitted that the presentation ceremony reminded him of a similar occasion when a like Volume was presented to his revered and distinguished father the late Sir R. G. Bhandarkar about a quarter of a century ago by a galaxy of brilliant scholars, Indian and European. In that connection he was further reminded of the words which that great son of Bengal, the late Sir Asutosh Mookerjee, used when conferring on him the Honorary Degree of Ph.D. of the Calcutta University in 1921. The late Sir Asutosh Mookerjee said: "your bold and brilliant excursions into many an unknown tract of Ancient Indian History have furnished fresh evidence of the Law of Heredity," and "your colleagues rejoice to find in you not a chip of the old Block but the old Block itself."

In spite of the scholarship and research in which he has created a name for himself, a young scholar always receives from him encouragement, guidance in the right direction, and, above all, finds in him that absence of superiority complex which is noticeable unfortunately in some of our veteran Indian scholars. His valuable and well-arranged library is open to an enthusiastic and sincere worker who can derive much help and benefit from there.

Coming to the details of papers contributed to the Volume, they are almost all papers of outstanding merit in various branches of Indology, especially Archaeology and Ancient Indian History and Culture. Here however we may note that Profs. Heras and Raychaudhuri have tried to show the existence of a cult of Śiva and Mother Goddess in India and Western Asia, in two separate articles. Prof. Heras deals with an interesting seal from Harappa, which according to Sir John Marshall has the figure of the Mother Goddess. He however takes that figure to be one of God Śiva, the god of Fertility. And what was supposed by Sir John to be the plant issuing out from the womb of the Mother Goddess is taken by him as the God's *nīcameḍhra*, or 'hanging organ', a characteristic which has been mentioned in the Atharvaveda in connection with the Vṛātya cult. According to Prof. Heras, prototypes of God Śiva were also found in Sumeria, Babylon and Crete. Prof. Raychaudhuri's contribution consists in the comparison of Śiva with Teshub of the Hittite pantheon who was associated with Mother Goddess actually called *Ma*. In the Kuṣāṇa period, I have recently shown, Śiva (Bhaveśa) was associated with NANA who has been identified by me with the Mother Goddess Ambā=Ambikā=Bhavānī. The Goddess NANA is also found in Western Asia and curiously enough this word was known even in the Ṛgvedic period in the sense of 'Mother'. It therefore seems probable that there was some common cult of Mother Goddess

both in India and in Western Asia. It will thus be seen that Prof. Heras and Prof. Raychaudhuri have tried to throw light on the cult of Śiva and Mother Goddess from different angles of vision. This is a very interesting subject on which much work still remains to be done. For the present will some scholar find out if Teshub, Bes and Śiva had common origin?

In the realm of epigraphy Professors Sten Konow, Lüders and Nilakantha Sastri have made valuable contributions. Prof. Lüders' contention of the identification of the era of Mahārāja Rājātīrāja with the Parthian era of 247 B.C. is a most plausible one, and it appears that a full consideration of the subject can hardly leave two opinions on the point. Among the papers dealing with the history of Gujarat, Mr. C. D. Chatterjee's paper is highly stimulating. There are other good contributions on Early Mediaeval and Mediaeval History dealing with the Western Cālukyas, Guhilots and the Kalacuris as well as with Rājputānā and Delhi. Mention may also be made of the interesting papers by some notable Indian scholars, namely, Drs. Krishnaswami Aiyangar, R. C. Majumdar and B. M. Barua. But it would take us too long to take proper note of them in this review.

The chief Editor of this Volume is of course Dr. B. C. Law who has distinguished himself not only as a scholar of a high order but also as a competent Editor of the *Indian Culture* for a long time. The publication of this Volume like other monumental works is also due to his unstinted generosity. We are also very thankful to Mr. S. C. Seal, Honorary General Secretary of the Indian Research Institute, for originally thinking of having such a Volume at all, securing the co-operation of distinguished scholars as members of the Board of Editors, and making the publication of the *Ācārya-puṣpāñjali* a success.

BAIJ NATH PURI.

OLD PERSIAN INSCRIPTIONS of the Achaemenian emperors, by Dr. Sukumar Sen, M.A., Ph.D.; pp. 288; published by the University of Calcutta, 1941.

Dr. Sukumar Sen is to be congratulated on the publication of this very useful work, which, I am sure, will be used as a companion volume to Benveniste's *Grammaire du vieux-perse* by all interested in Iranian history and philology. All the Old Persian inscriptions discovered up to date will be found here collected in one handy volume. To make the work complete in this respect the author had to insert the "further inscriptions" published after the book as originally planned was already printed. For the same reason the author had to give supplementary addenda to the very valuable Glossary, but

the reader should note that these addenda have been inserted *before* the "Further Inscriptions." Those interested in the history of ancient Persia will find here the Achaemenian monarchs speaking to them directly in a language singularly like Sanskrit; and those interested in ancient Iranian culture will experience a pleasant surprise to find in the Daiva-inscription (discovered in 1935) a striking corroboration of the daring theory launched by Prof. Benveniste that in spite of Zarathuštra and his royal converts the religion of the Iranian *people* remained essentially Daivic. But Dr. Sen has planned his book specially for our students interested in philology. With this end in view he has given a Sanskrit *Chāyā*—even at the risk of coining new forms at every step—to every Old Persian text. Over and above this, every Old Persian word has been philologically analysed in the copious notes added to every inscription. On some points at least, more information would have been welcome in these notes. Regarding the anomalous form *miθra*, for instance, it should have been mentioned perhaps that the Elamite version presupposes the truly Persian form *missa*. A few words seem to have been missed in the Glossary and the Addenda thereto,—*haumavarkā* for instance, occurring in Naxš-i-Rustam a l. 25.—At the end Dr. Sen has also given an Outline of Old Persian Grammar. Due to enforced brevity no doubt, the rules could not always be given here in perfectly unambiguous form.

BATAKRISHNA GHOSH.

WOMEN IN ṚGVEDA by Bhagwat Saran Upadhyā, M.A., pp. 241, printed at the Benares Hindu University Press, 1941.

It is gratifying to see that this learned work has come out in a second edition eight years after the first. This shows that our countrymen have now learnt to take interest in the history of our national culture. The author has in the meantime completely rewritten the book, as he says in the preface. Unfortunately there are still too many mistakes and inaccuracies. I am not going to list here the mistakes in quoting and translating the texts, for that will be doing injustice to an author who does not claim to be a Sanskritist. But I cannot pass over in silence the cases in which through sheer inadvertence the author has landed himself in ugly errors. Author's elaborations on the word *devṛkāmā* is a case in point. Not content with widow-remarriage and levirate, he has calmly declared that after the death of her husband the wife "could not remain a widow even for a day" (p. 94), and he repeats the substance of this statement in a more piquant form on p. 97. But the fact is that the word *devṛkāmā* does not occur at all in the Ṛgveda. In the passage (RV. X. 85. 44) referred to by Mr. Upadhyā in this connection I read only

*devakāmā*, and that in all the editions of the R̥gveda known to me. Oldenberg too in his *Textkritische und exegetische Noten* (Vol. II, p. 289) decided in favour of this reading. R̥gvedic *devy̥kāmā* is in fact a fiction of Böhtlingk-Roth, accepted by generations of uncritical writers. But the funniest thing about it is that on p. 129 when translating the same passage ("loving the gods") our author had apparently the correct text in view! Mr. Upadhya takes the word *gartāruh* (this is the correct form, not *gartāruḥ*) to signify "other widows also led to be remarried" (p. 95); is it due to oversight that he has not tried to justify this translation? The Dānastuti-verse RV. I. 126. 7 has been completely misinterpreted on p. 61 (see Geldner's comments in his Uebersetzung). On this page Ghoṣā has been called *rājñāduhitā*, but surely such a word is not possible in Sanskrit! In an astonishing digression the author has gone out of his way to support the theory of Dr. Pran Nath that "the *R̥gveda* in its origin is a Sumero-Egyptian document" (p. 125, f.n. 7). The author has repeatedly referred to a German book which he uniformly calls *Entwicklungsstufen*!—In spite of these imperfections the book certainly repays perusal. Much in it is quite irrelevant: There was, for instance, no call for an elaborate analysis of the gambler's hymn.

BATAKRISHNA GHOSH.

VON DER SEELE DER INDISCHEN FRAU im Spiegel der Volkssprüche des Konkan, von Hedwig Bachmann, pp. X+167; Tipografia Rangel, Bastorá, India Portuesa, 1941.

The title of this book is really frightening to a mere man, but in reality it is quite a homely book. The authoress has tried to describe the social life in Western India in the light of Konkaneese proverbs. It is not at all an objective description of the daily life of the people. The object of the writer's enquiry is rather the *spirit* of the Indian people in general, and the *soul* of the Indian woman in particular, which latter, she thinks, is reflected in the Konkaneese proverbs she has studied. The whole book is nothing but a running commentary on these current proverbs. It reveals to us how the rural life in Western India strikes an intelligent and educated European lady neither claiming nor possessing any special knowledge of Indian culture, history or languages. The book is thus useful. All the proverbs given in it however do not reflect the true state of things either in ancient or in modern times,—for instance, the one quoted on p. 153: "the coloured woman belongs to her husband, but the white woman to everybody". The foreword written by Prof. W. H. Hoffmann is unworthy of this useful book.

BATAKRISHNA GHOSH.

INSCRIPTIONS DU CAMBODGE, éditées et traduites par G. Coedès, Vol. I, pp. 321 ; Hanoi, École Française d'Extrême-orient, 1937.

In this splendid volume M. Coedès has given the text and translation (with copious notes) of some of the particularly important inscriptions bearing on Cambodian history discovered since 1929. The Saiva inscription of Phnom Prâh Vihâr is a short Sanskrit one of nine verses eulogising King Bhavavarman who might be Bhavavarman I, the conqueror of Fou-nan, or Bhavavarman II who reigned in 561 A.D. Of the two inscriptions of Jayavarman I the first is of considerable historical importance, inasmuch as it mentions the Pallava kings of Kañcîpura ; the second proves that Jayavarman I was still reigning in 673 A.D. The inscription on the stele of Prah Ko of the time of Indravarman (877 A.D.) records the installation of three statues of Śiva and three statues of Devî ; there is perhaps also an allusion to the cult of Devarâja. The seventh verse of this inscription is worth quoting : प्रथमं लब्धराज्यो यः प्रतिज्ञां कृतवान्

इति । इतः पञ्चदिनाद्ध्वं प्रारप्स्ये खननादिकम् ॥ The inscription of Śivasoma, the guru of king Indravarman, is of the first importance, for Ś. says that he had learnt the Śâstra from the mouth of Bhagavat Śaṅkara himself ; M. Coedès avers that this Śaṅkara might be the great Śaṅkarâcârya.—A Subhâṣita with quadruple entendre may be found in the twenty-seventh verse of one of the new inscriptions of Koh Ker of the time of Jayavarman IV (p. 64): चन्द्रहासः

प्रियो यस्य प्रकाशो भुवनेष्वहो । तथा हि हस्ते हृदये कोट्यां सन्निहितो मुखे ॥ Here *candrahâsa*=scimitar is in his *hand* ; moon-like benevolence in his *heart* ; his glory *mocks even the moon* which is imperfect in comparison ; and of course his *face* rivals the moon in beauty.—The long inscription on the stele of Pre Rup (298 verses, tenth century) supplies many valuable data for cultural history, and specifically mentions the Atharvaveda, Rāmāyaṇa, Mahābhārata, Pāṇini, Raghuvamśa, and also the Buddhist doctrine of Yogācāra.—King Jayavarman V (967 A.D.) has been eulogised in the inscription of Bantay Srei (p.

150) in the following terms : पातञ्जल्ये काणादेऽक्षपादकफिलागमे । बौद्धे वैद्ये च गान्धर्वे ज्यौतिषे नयते स्म यः ॥ आख्यायिकाकृतिरभूत् स्वदेशे यदुपक्रमम् । नानाभाषालिपिज्ञश्च प्रयोक्ता नाटकस्य यः ॥ He became famous as a poet also in foreign countries : काव्यैः सच्चरितैर्दूरे नानाद्वीपान्तरस्थितान् ।

यः समुत्सुक्यामास विदुषः सज्जनानपि ॥ (verse 24).—The long inscription on the stele of Prasat Komphus of the age of Jayavarman V (972 A.D.) is poor in historical data but contains many pretty verses in typical Kāvya style, e.g. verse 34 : विधूतखड्गाग्रभयाद्विलम्बिनो विपक्षवक्षस्तज्जराणां श्रियम् । विलोक्य कीर्तिः कुपितेव दिग्दुता प्रियापि यस्य प्रययौ न सन्निधिम् ॥

The second of the two new inscriptions from Prasat Khna (pp. 197 ff.) is of the time of Udayādityavarman II and dated in the year Śaka 982=1060 A.D. It consists of 122 verses of indifferent quality offering hardly any new historical data.—The inscription of the time of Harṣavarman III (pp. 222 ff.) dated in the Śaka year 987 is likewise a barren Praśasti.—The inscription (date 1189 or 1195 A.D.) on the stele of Prasat Tor (pp. 227 ff.) is a miniature Kāvya in 61 verses bristling with cheap alliterations, e.g. दोर्दण्डदण्डदलितद्विरदेन्द्रदन्तक्षोभैः etc. (verse 19). The author of this inscription was the grandson of a Brahmin dignitary who served successively under three Buddhist kings.—The other inscriptions given in this volume though highly interesting in many respects are not so important for the political and cultural history of Cambodge as the ones mentioned above.

It is impossible to do adequate justice to a work like this in a short review. M. Coedès, as also the École Française d'Extrême-orient which has done so much to recover the forgotten history of Greater India, has won the gratitude of all Indians by publishing in such exemplary fashion the newly discovered inscriptions of Cambodge. I hope Indian historians will not fail to pay the book the respectful attention it deserves.

BATAKRISHNA GHOSH.

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## IMPORTANT CONTRIBUTIONS TO ORIENTAL JOURNALS

*Annals of the Bhandarkar Oriental Research Institute, Vol. XXI, Parts III-IV, 1941.*

"Asura Varuṇa" by R. N. Dandekar.—Author rejects the equation Varuṇa = Ouranos, and neither does he accept the Moon-theory of Oldenberg and Hillebrandt. Starting with the assumption that Güntert was right in connecting Mi-tra with *me-khalā* he comes to the conclusion that Varuṇa represents "the conception of the world-sovereign" and that "the rivalry between Indra and Varuṇa would give us the necessary starting point for the discussion of how the world-sovereign...was transformed into the god of ocean."

The Buddhistic Conception of Dharma by P. T. Raju.—Excellent treatment of a very difficult subject. Author's conclusions, apparently reached independently, are very like those of Rosenberg, *Die Probleme der buddhistischen Philosophie*, Heidelberg 1924.

Ancient Indian Tribes by B. C. Law.—Author has here collected material about the Kalingas, Kulaṣas, Ramaṣas and Pāradas.

Regional and Dynastic Study of South Indian Monuments by H. D. Sankalia.—Author raises, *inter alia*, the question whether the underlying regional difference is due to the fact that Bhakti-cult in Śaivism developed late in the eastern part of S. India.

Paget's Gesture-theory of the Origin of Human Speech by C. R. Sankaran.  
—Author has indulged in much unorthodox glottogonical speculation in presenting Paget's "fascinating theory".

Chronology of the Works of Mahīdhara by P. K. Gode.—Author shows that Dr. Sarup was wrong in assigning to the 12th century the commentator Mahīdhara who "flourished between A.D. 1530 and 1610 or so."

Vedic Lores by Hiralal Amritlal Shah.—Author is of opinion that the three wheels of the Aśvins' Car (RV. X. 85. 14) are the three stars of the Constellation Aśvinī.

A Controverted Reading in Meghadūta by Hiralal Amritlal Shah.—Author finds support for the reading *praśamadvase* in the expression "*parīnata-śaraccandrikāsu kṣapāsu*."

Racial Origin of Nambudri Brahmans by K. R. Chatterjee.—"The Nambudris migrated from north India with the republican Āyudhajivin constitution and settled in the south."



Rāvaṇa's Laṅkā by Daniel John.—“Rāvaṇa's Laṅkā was not on the Vindhya Ranges but on an island in the midst of the sea off the Southern or South-eastern coast of the Island of Ceylon.”

Mahābhārata Notes by Vasudeva S. Agarwala.—Interesting comments on *vāraṇau śaṣṭihāyanau* (Virāṭa-p. 12. 20), *vaiyāghra* (Sabhā-p. 51. 34), *upasṛtāḥ* (Vana-p. 240. 5), *haraṇa* (Ādi-p., Crit. Ed., p. 36), and the story of Yavakṛita (Vana-p., chs. 133-38).

*Annals of Oriental Research, University of Madras, Vol. V, Part 1, 1940-41.*

Place-name Suffixes in Tamil by R. P. Sethu Pillai.

Alpeḍai (lengthening of the quantity of a letter) [in Tamil] by V. Venkata Rajulu Reddiar.

Telugu Literature Outside the Telugu Country by K. Ramakrishnaiya.—A Brief Historical Survey from the Earliest Times to the Present Day.

Ancient Kerala by C. Achyuta Menon.—Presidential address delivered at the Malayalam Section of the All India Oriental Conference held at Tirupathi, March 1940. Superficial.

Vyavahāraśiromaṇi of Nārāyaṇa [a pupil of Vijñāneśvara] edited by T. R. Chintamani.—The only manuscript, from which this important Nibandha has been edited here, breaks off in the middle of the Dāyabhāga section.

Arab Maritime Enterprise by S. Muhammad Husayn Nainar.—“The Arabs' knowledge of the oceans may be inadequate, yet they had a clear idea of the Eastern Seas.”

Arabic and Persian Words in the Tamil Language by S. Muhammad Husayn Nainar.—“Even before the birth of Islam in Arabia, the Tamil language had already been influenced by Arabic contact.”

Tattvaśuddhi edited by S. S. Suryanarayana Sastri and E. P. Radhakrishnan.—This instalment contains the following chapters :—Bhedanirākaraṇam, Asatkāryavādanirākaraṇam, Kṣaṇabhaṅgavādanirākaraṇam, Bhedābheda-nirāsaḥ, Dehātma-vādanirākaraṇam, Vijñānavādanirākaraṇam and Saṁsāramithyātvaṁ.

*The Aryan Path, March-April 1941.*

Hindu Epistemology and Modern Thought by V. R. Talasikar.—“An intellectual understanding of the working of the Universe or the construction of the fabric of the Universe on the strength of metaphysical speculation has never been regarded in Hindu Philosophy as Right Knowledge.” What about Sāṅkhya?

The Upanishada Ideals of Education by Matilal Das.—A rather commonplace sermon on the famous passage of the Taittiriya Upaniṣad.

Bergson and Saṅkara by P. Nagaraja Rao.—Though Bergson does not believe in anything transcending both matter and mind, yet the author finds some plausible affinity between Bergson's philosophy and Saṅkara's.

The Miracle of Sikhism by Jogendra Singh.—Not very helpful.

*The Asiatic Review*, April 1941.

The Elements of Malayan Civilization by Sir Richard Winstedt.—“Hinduism in all its forms was centred at novel courts. . . . The divine right of rajas who had to be addressed in a special vocabulary full of Sanskrit words, an embryo caste system. . . . all these innovations were of Indian origin. . . . Islam with all its intolerance failed to oust Sanskrit terms for “religion”, “teacher”, “heaven”, “hell”. . . . The Hindu period of Malay civilization. . . . was started early in the Christian era by the coming of Pallava immigrants to Kedah and Perak.”

*Bulletin de l'École Française d'Extrême-orient*, Tome XL, Fasc. 1, 1940.

Dictionnaire tay blanc français par Georges Minot.—A valuable dictionary of the chief Siamese dialect.

*Bulletin of the Deccan College Research Institute*, Vol. I, Nos. 1-4; Vol. II, Nos. 1-2.

Epic Questions by V. S. Sukthankar.—Author has effectively defended the reading *hāṣyarūpeṇa* instead of *haṁsarūpeṇa* in Mbh. (Crit. Ed.) 1. 57. 21.

Apropos Epic *iyāt* by S. M. Katre.—Author discusses the use of some optative forms in preterital sense.

The Ṛg-veda Mantras in their ritual setting in the Gṛhya Sūtras by V. M. Apté.—It is hardly an exaggeration to say that the author by this work has opened up a new field of research. By a close examination of the Ṛk-mantras in the Āśvalāyana Gṛhyasūtra Mr. Apté has proved that the mantras on the whole were appropriate to the occasions on which they were used and therefore could not have been regarded as mere magical formulas charged with mysterious potency.

XVIIth Century Gold-gilt Copper-board Inscriptions and Sculptures from Nepal by H. D. Sankalia.—“It is perhaps the first time that ‘bronzes’ of all the Five Dhyānī Buddhas from Nepāl are brought to light.”

Reduplicatives in Indo-Aryan by S. M. Katre.—Advance specimen of a comprehensive work on the subject.

Absolutives in the Critical Edition of the Virāṭaparvan by M. A. Mehendale.

—Author has pointed out a large number of irregular absolutives including a case of *grhya* (occurring in the oft-quoted verse *sandhyāvadhūm* etc. attributed to Pāṇini).

Some Important Personalities of Baghdād (during the latter half of the 4th and the earlier quarter of the 5th centuries of Islām) by C. H. Shaikh.

Some Folk-songs of Maharashtra by Irawati Karvé.

Reconstruction of the Proto-Dravidian Pronouns by C. R. Sankaran.—Highly speculative.

François Martin by R. G. Harshe.—Romantic life of “the real founder of the French Dominions in India.”

The Geographical Factors in the History of Mahārāṣṭra by T. S. Shejwalkar.—Excellent geo-political study.

Indo-Arica I by S. M. Karte.—Discussion of Skt. *ārṇāvdbhi* and AMāg. *caḍagara*.

Jaina Yakṣas and Yakṣiṇīs by H. D. Sankalia.—This paper “is only a step [in the direction of archæologically studying Jaina Yakṣas and Yakṣiṇīs] including figures from the Prince of Wales Museum, Bombay, the Jaina temple at Aihole, Jaina Cave at Bādāmi, those reported from a temple at Deogarh in Central India, and one from Patan in Northern Gujarat.”

The Ambarnāth Temple by H. D. Sankalia and A. V. Naik.—Authors aver that this temple might have been an immediate source of inspiration to the Śilahāras and the Yādavas.

Megalithic Monuments near Poona by H. D. Sankalia.

The so-called Buddhist Images from the Baroda State by H. D. Sankalia.—Author shows that these are Jaina images and not Buddhist at all.

Ṭākkī or Dhakkī by M. A. Mehendale.—Attempt at reconstructing the grammar of this dialect from the speeches of Māthura and Dyūtakara in the second act of *Mṛcchakaṭika*. “Ṭākkī is a Romani or Gypsy dialect spoken somewhere in India, either in North-West Panjab or in Orissa.”

The Roots of the Pāli Dhātupāṭhas by S. M. Katre.—This list is based on the *Dhātupāṭha* and *Dhātumañjūsā* edited by Dines Andersen and Helmer Smith and the second section of *Saddanīti* edited by Helmer Smith. Author says: “the full significance of this list will become clear in my forthcoming work *Materials for a Dhātupāṭha of Indo-Aryan*.”

Case Variations in the Critical Edition of the Mahābhārata,—the Dative and its variants by E. D. Kulkarni.—An excellent idea carried out conscientiously after the fashion of Edgerton's *Vedic Variants*.

Kinship Terminology and Kinship Usages of the Marāṭhā Country by Irawati Karvé.—Thorough and exhaustive.

The Dravidian (Tamil) *Atta-* and *Annai* in Hittite by C. R. Sankaran.—  
Altogether too daring.

A Textual Criticism of the Āśvalāyana Gṛhya Sūtra by V. M. Apte.—  
Based upon the non-inclusion in the Āśvalāyana-mantrasamhitā of some  
Ṛgvedic Mantras cited in the Āśvalāyana Gṛhyasūtra.

Were Castes formulated in the Age of the Ṛgveda? by V. M. Apte.—In  
author's opinion, caste was not formulated in India,—“the Ṛgvedic  
Aryans came with the fourfold division into India.”

Studies in Nāgārjunakoṇḍā Sculptures by A. V. Naik.—Detailed study of  
dress and ornaments.

A Further Note on Ṭākkī by M. A. Mehendale.—Here is given the material  
from a Kaḍavaka of the *Harivaṃśapurāṇa* which, according to its author,  
is written in Ḍhakka-bhāṣā.

The Śrauta Counterpart of the Godāna Ceremony by C. S. Venkateswaran.  
A Note on the ‘Ābhīras’ in Patañjali by D. G. Bhawe.

The Cultural and Social Conditions as Reflected in the Similes of the  
Dawn-hymns in the Ṛgveda by P. K. Narayana Pillai.

Gupta Inscriptions and the Purāṇic Tradition by D. R. Patil.—Author has  
tried to reconstruct part of Guptan tradition “by corroborating the in-  
scriptural hints from the unanimous tradition of the Purāṇas.”

Contributions on Indo-European Accent by C. R. Sankaran.—Survey of  
current theories on the subject. Not very lucid.

*The Calcutta Review*, February—March—April, 1941.

The Modern Age in India by S. N. Sen.—Presidential address, Modern  
Indian History Section, Indian History Congress, 1940.

An Enquiry into Idealism in Hindu Marriage by Krishnagopal Goswami.

*Epigraphia Indica*, Vol. XXV, Parts VI-VII, April—July, 1940.

Charala Plates of Virarājendravēda (Śaka 991) by A. S. Ramanatha Ayyar  
and V. Venkatasubba Ayyar.—This is the first copper-plate charter of  
this Cola king and is of great help in filling up the lacunae in the Kanyā-  
kumārī record (EI. XVIII, pp. 21 ff.) of the same king. Political and  
military career of Virarājendra has been fully discussed by the editors.

Date of the Pāṇḍava Kings of Southern Kosala by A. Ghosh.—Author has  
tried to show that these kings cannot be dated so early as the sixth  
century A.D.

Nilagangavaram Inscription of Ambadeva-Mahārāja (Śaka 1212) by R. S.  
Panchmukhi.—In the introductory portion it is said that the Kṣatriyas

who survived the havoc made by Paraśurāma came to be called Kāyasthas. "The Kāyasthas were a powerful family of feudatory chiefs who played a prominent part in the politics of the mediaeval period in the Telugu country."

Bargaon Temple Inscription of Śabara by V. V. Mirashi.—"If the identification of the illustrious Śabara of the present inscription with the Śabara chief slain by Kṛṣṇarāja's minister is accepted, the Śabara chief can be referred to the third quarter of the 10th century A.D."

Jirjingi Plates of Gaṅga Indravarman by R. K. Ghoshal.—Dated in the year 39 (of the Gaṅga era?), "it is the earliest inscription of the Eastern Gaṅga kings discovered so far."

Poona Plates of Chālukya Vinayāditya (Śaka 612) by Madho Sarup Vats.—Records gift of land at the request of the queen to two Brāhmaṇas "for the merit accruing from the gift of a girl in marriage (*kanyādharmmāram*)." *tham*."

Anjaneri Plates of Gurjara Jayabhṭa III (710 A.D.) by Madho Sarup Vats and D. B. Diskalkar.—The beneficiary of this grant was a Brāhmaṇa named Nārāyaṇa, son of Vasusvāmin of Dābhilya gotra and Chanoga-Kauthuma Śākhā.

The Punjai Inscription of Kṛṣṇadevarāya by Nilakantha Sastri.—This epigraph (date 1517 A.D.) is a copy of an order issued by King Kṛṣṇadevarāya of Vijayanagara while he was camping on the banks of the river Kṛṣṇaveṇī some time after his conquest of the Kālīṅga Country.

Jubbulpore Stone Inscription of Vimalaśiva: the Kalachuri year 926 by V. V. Mirashi.—"The importance of the present inscription lies in the information it furnishes about the spiritual preceptors of the Kalachuri kings of Tripurī."

Conjeeveram Inscription of Brahma-tantra-svatantra-Jīyar (Śaka 1282) by A. S. Ramanatha Ayyar.—The inscription is worded as if it is issued by the deity himself. Brahmatastrasvatantra was a direct disciple of Vedānta-Deśika. This epigraph refers to a collection of manuscripts which was kept in the *maṭha* and a stipulation made for its proper upkeep.

Kāśyapa Image Inscription from Silao by B. Ch. Chhabra.—The Kāśyapa mentioned in this ninth century inscription is no other than the Mahā-Kāśyapa who is reputed to have convened the First Buddhist Council. The find-spot corresponds to the place where, according to the Aṭṭhakathās, Kāśyapa first met the Buddha.

A Bronze Image Inscription from Nālandā by A. Ghosh.—The inscription shows that a *haṭṭa* was founded at Nālandā by Devapāla.

A Note on the Pañchadhārāla Pillar Inscription of King Viśveśvara by M. Somasekhara Sarma.—"The date should be corrected to Śaka 1324."

*The Indian Historical Quarterly, Vol. XVII, No. 1, March, 1941.*

Cirañjīva and his Patron Yaśavanta Simha by Dinesh Chandra Bhattacharyya.

The Cālukyas of Kalyāṇi (Taila II, 973-97 A.D.) by S. L. Katare.

The Talpurs of Sind by Mohammad Yasin.

The North-West Frontier of the Sultanate during the 13th Century by U. N. Day.

Somatism of Vedic Psychology by R. N. Dandekar.

Defence of Patna against the Pindari Incursion of 1812 by Kalipada Mitra. Guṇapatākā (an unknown Sanskrit work and its date—before A.D. 1200) by P. K. Gode.

A Linguistic Note on the Muṇḍaka Upaniṣad by Vidhusekhara Bhattacharyya.—A number of grammatical "irregularities" have been discussed.

The Muslim Conquest of Bengal by N. B. Roy.—Lakṣmaṇasena made a brave stand according to Isamī (1350 A.D.) the author of *Futuh-us-salaṭīn*.

Kṛṣṇa Deva Rāya's Economic Policy by Y. Venkataramana.

Epithets of an Arhat in the Divyāvadāna by E. J. Thomas.

Date of the earliest Sanskrit Inscription of Campā by Dines Chandra Sircar.—Author defends his position that the date 2nd or 3rd century A.D. would be too early for the Vo-cañh inscription.

The Vatsagulma Copper-plate Grant of King Vindhyaśakti II by Dines Chandra Sircar.—Text and translation.

Date of the Kalacuri Kokkala I by Khushal Chandra Vatsalya Jain.—"Kokkala I ruled between c. 840 and 885 A.D."

The Sūtrasamuccaya by Anukulchandra Banerjee.—"There were two texts of Sūtrasamuccaya—one by Śāntideva and the other by Nāgārjuna."

*Journal of the American Oriental Society, Vol. 61, No. 1, March 1941.*

The Faithful Dog as Security for a Debt: A Companion to the Brahman and the Mongoose Story-type by M. B. Emeneau.—Thirteen Indian versions of the story have been given here.

The Vocalism of Sino-Tibetan by Robert Shafer.

The Voiced Sibilants in Sanskrit by Gordon H. Marsh.—Brief but thorough. Almost all the forms concerned have been discussed.

*Journal of the Annamalai University, Vol. X, No. 3, March 1941.*

The Nayaks of Tanjore (contd. from previous issue) by V. Vridhagirisān. Studies in Sanskrit Texts on Temple Architecture with Special Reference to the Tantrasamuccaya by N. V. Mallaya.

Bhāvanāviveka with Viṣamagranthikabhedikā by V. A. Ramaswami Sastri and K. A. Sivaramakrishna Sastri.

Prameyamālā by R. Ramanujachariar and K. Srinivasachariar.

*Journal of the Bihar and Orissa Research Society, Vol. XXVII, Part I, March 1941.*

The Wall-paintings of Ajanta by G. Yazdani.—A vastly entertaining and instructive lecture. "We find that the art of painting was considerably developed in the second century B.C."

The Rise of the Rajputs by Bhupendra Nath Datta.—Ethnological study. Identification of a Sculpture in the Provincial Museum, Lucknow, by D. P. Pandey.—Author proposes to identify the images as Balarāma, Rukmiṇī and Vāsudeva-Kṛṣṇa.

The Jñānasvarodaya of Dariyā Sāhab by Dharmendra Brahmachari Sastri.

*The Journal of the Greater India Society, Vol. VII, No. 1, January 1941.*

Recent Progress in Malayan Archaeology by K. A. N. Sastri.

Theravāda Buddhism in Burma by Nihar Ranjan Ray.

*Journal of the Gujarat Research Society, Vol. III, No. 2, April 1941.*

The Early Mediaeval Temples of Gujarat and Treatises on Architecture by H. D. Sankalia.

*Journal of Indian History, Vol. XX, Pt. 1, April 1941.*

Identification of 'Indraratha of Ādinagara' found in Tirumalai Inscriptions of Rajendra Chola I by P. Acharya.

The First two Anglo-Mysore Wars and Economic Drain on Bengal by Kalikinkar Datta.

The Mogul Family and the Court in 19th Century Delhi by T. G. P. Spear.—A revolting picture.

Some tribes of Ancient India by Bimala Churn Law.—Author has discussed the Mūṣikas, Māhiśakas, Bhṛ̥gukacchas, Tosalas, Gajāhvayas, Parnasavaras, Kaṅkanas and Aparāntas.

The Gupta Era by Dharendra Nath Mookerjee.—Author has tried to show that "astronomical verifications support the fact that the era introduced by the Gupta Vikramādityas is identical with the well-known Vikrama era."

Jain Religious Orders in the Kuṣāṇa Period by Baij Nath Puri.  
Gangu Bahmani by H. K. Sherwani.—“The word Bahman has absolutely no connection with Brahmins and only reminded the King of his Zoroastrian origin.”

Timur Shah's Army in 1793 by Hari Ram Gupta.

Last Days of Guru Govind Singh by Ganda Singh

Peshwa Madhav Rao I's Last Carnatic Expedition by Anilchandra Banerjee.

Partition of Sirhind Province by the Sikhs, January 1764 by Hari Ram Gupta.

*Journal of the Malay Branch of the Royal Asiatic Society, Vol. XIX, Part II, February 1941.*

An Introduction to the Study of Ancient Times in the Malay Peninsula and the Straits of Malacca by Roland Braddell.—Contd. from Vol. XVII, Pt. 1, pp. 146-212.

*The Journal of the Polynesian Society, Vol. 50, No. 1, March 1941.*

Melanesian Modes of Speech by W. G. Ivens.—Concluded.

*Journal of the Royal Asiatic Society of Bengal, Letters, Vol. VI, 1940, No. 2.*

Survivals of the Indus Culture by M. E. and D. H. Gordon.—An attempt to bridge up archaeologically the apparent gulf between the Indus Culture and the Early Historical Period.

The Ancient Workers of Western Dhalbhum by E. F. O. Murray.

Panegyric of Malaivamma by Chintaharan Chakravarti.—Tantric *Yantras* are the main theme of this panegyric!

*The Journal of the Sind Historical Society, Vol. V, No. 2, June 1941.*

Studies in Indo-Muslim History by Hodivala.—Critical comments on Elliot's History of India, Vol. 1, pp. 300 to 326.

The Sassanians in Sind by N. M. Billimoria.—Unscientific.

The Iranians in Ancient India by N. M. Billimoria.—Superficial.

*Man in India, Vol. XXI, No. 1, January-March 1941.*

The Sun as a Folk-god by Nanimadhab Chaudhuri.—“Certain features of folk worship of the sun have persisted from the early Vedic times to the present day.”

Hydroselenic [as opposed to Helio-lithic] Culture by Srikantha Sastri.



*New Indian Antiquary Vol. III, Nos. 11-12 and Vol. IV, No. 1, February-March-April 1941.*

Eighteenth-century Malayālam Prose written by Christians by L. V. Ramaswami Aiyar.

Inscriptions of Kathiawad by D. B. Diskalkar.

The Epoch of the Gupta Era by K. G. Sankar.—After an examination of the astronomical data in the inscriptions the author comes to the conclusion that “273 A.C. must therefore be the true epoch of the Gupta era.”

On the Study and Metrology of Silver Punch-marked Coins by D. D. Kosambi.—Incomprehensible for the most part. Very learned.

The Hun Invasion of Hindusthān by K. G. Sankar.—In this thought-provoking article author has tried to explode “the myth of Hun invasion.” “Yaśodharman and Bālāditya defeated two different Mihirakulas,” “the Huns invaded Hindusthān in Gupta Year 136 but were decidedly defeated by Skandagupta and never ruled east of the Indus,” “Toramāṇa and Mihirakula were not Huns but Parthians or Kshatriyas.”

#### CORRECTION.

The last two lines of footnote 27a, p. 412, should be read “that Govindapāla’s *atīta-rājya* years should be regarded as his regnal years continued even after he had lost his kingdom.”

#### NOTICE

The Plate accompanying the paper “Pāikpārā Vāsudeva Image Inscription of King Govindacandra of Bengal” will appear in the next issue.

Thus difference of longitude of the planet (for the difference of terrestrial longitude of the prime meridian and the observer's position)

$$= \text{daily motion of planet} \times \frac{\angle A'CO}{360^\circ}$$

$$= \text{daily motion of planet} \times \frac{\text{arc } A'O}{\text{circle } A'OM}$$

$$= \text{daily motion of planet} \times \frac{\text{arc } LK}{\text{circle } ELKQ}$$

The *yojanas* of the difference of longitude of the observer from the prime meridian is to be measured on the Equator if its circumference is known in *yojanas*, or on the parallel of latitude if its circumference is known in *yojanas*.

(3) According to the text, if the daily motion of the planet is  $x$  degrees, and  $y$  *yojanas* the difference in terrestrial longitude, the correction for such difference in longitude is  $y.x/60$  *liptās*. This is to be subtracted from the mean position of the planet as found, if the place be east of the prime meridian, and is to be added if the place is west.

The formula may be written as :

$$\text{deśāntara correction} = y.x \text{ minutes} / 3600,$$

which is based on the proportion :

$$\frac{\text{deśāntara correction in liptās}}{x \text{ liptās (minutes)}} = \frac{y \text{ yojanas}}{3,600 \text{ yojanas}}$$

and  $y$  *yojanas* are to be measured on the same circle of the earth whose circumference is 3,600 *yojanas* (either the Equator or the small circle at the observer's position parallel to the Equator) to determine the distance between the intercepts of the observer's meridian and the prime meridian. If the Equator be taken as 3,600 *yojanas*,  $y$  *yojanas* must also be measured on the Equator ; and, if 3,600 *yojanas* be the measure of the small circle at the observer's position parallel to the Equator,  $y$  *yojanas* must also be measured on this small circle.

According to *Āryyabhāṭa*, the earth's diameter is 1,050 *yojanas*, and the ratio of the circumference to the diameter of a circle is 62,832/20,000 ; and therefore the earth's circumference would be 3,298.68 *yojanas*. The earth's circumference at the Equator seems to have been taken by *Muñjāla* as 3,600 *yojanas*.

According to *Mahābhāskariya*, VII, 22 (See Sen Gupta, Introduction to *Khaṇḍakhādya*, p. xv), *Brāhmasphuṭasiddhānta*, *Sūryya-*

*siddhānta*, I, 59, *Siddhānta-śekhara*, and *Siddhānta Śiromaṇi*, the diameter of the earth is 1,600 *yojanas*. According to *Sūryya-siddhānta*, the square root of ten times the square of that is the earth's circumference. According to *Bhāskara*, the earth's circumference is 4,967 *yojanas*. According to *Yallaya*, a commentator of *Laghumānasa*, it is 4,800 *yojanas*.

*Pañcasiddhāntikā*, XIII, vv. 15-16, define a degree of the earth's circumference to be equal to  $(9 - \frac{1}{3})$  *yojanas*, or  $90^\circ = 800$  *yojanas*; and the circumference = 3200 *yojanas*.

The corrected circumference of the earth at the observer's latitude is the equatorial circumference multiplied by the sine of the co-latitude of the observer's position (*Sūryya-siddhānta*, I, 60).

(4) The text of the verse given above follows the commentary of *Parameśvara* and some other manuscripts. *Praśastidhara's* commentary gives a variation of the second line of the verse as

ग्रहगत्यंशषष्ट्यंशाः हता लिप्ता ऋणं धनम्

(*grahagatyamśaṣṣṭyamśāḥ hata liptā ṛṇam dhanam*). The significance is the same as before.

But, *Yallaya*, the commentator, gives quite a different reading of the second line, which alters the meaning. It is हता भुक्तिः खखाद्यान्धि-हता लिप्तास्वृणं धनम् (*hatā bhuktiḥ khakhāstābdi-hṛtā liptāsvṛṇam dhanam*). According to *Yallaya*, therefore, the *deśāntara* correction = distance in *yojanas* of the observer's position from the prime meridian  $\times$  daily motion of the planet/4,800 *yojanas*. Here 4,800 *yojanas* is evidently the equatorial circumference and the distance of the observer from the prime meridian is also measured in *yojanas* on the equatorial circumference.

(5) Illustration.—At Kashmir the difference in longitude being 99 *yojanas* east, and the true motion of the sun being  $61' 18''$ , the *deśāntara* correction =  $\frac{61' 18'' \times 99}{3,600}$  liptās =  $1' 41''$ . Deducting this from the sun's longitude  $8^s 19^\circ 33'$ , the correct longitude at the place of observation is  $8^s 19^\circ 31' 19''$ .

To determine *tithi*, *karāṇa*, *nakṣatra* and *yoga* —

व्यकन्दुस्तिथितियर्थे ग्रहाद्भान्यनुपाततः ।

योगश्चन्द्रार्कसंयोगात् तदाद्यन्तो स्वभुक्तिः ॥ २१ ॥

*vyarkendustithitithyardhe grahādbhānyanupātatah |*  
*yogaścandrārkaśamyogāt tadādyantau svabhūktitah || 21 ||*

21. The difference of the positions (longitudes) of the moon and the sun gives *tithis* and *half-tithis* (*karaṇas*); the (position or longitude of the true) planet gives the *nakṣatra*; the sum of the longitudes of the sun and the moon gives *yogas*; all these are obtained by proportion; the beginnings and the ends of each of these (*tithi*, *karaṇa*, *nakṣatra* and *yoga*) are determined from the motions of the respective planets by proportion.

Notes.—(1) The period between two consecutive New Moons is called a lunation or lunar month, and is divided into 30 parts called *tithis*. The moon has a quicker motion eastwards amongst the stars than the sun; starting from the new moon when they have the same longitude, the moon gains on the sun every day, and when it gains 360 degrees on the sun, or when the longitudes of the sun and the moon are again equal, we get the next new moon. Instead of dividing the lunation into 30 equal *tithis*, the difference of longitudes of the moon and the sun, namely 360 degrees, between two consecutive lunations is divided into 30 equal parts of 12 degrees each, and the period during which the moon gains 12 degrees on the sun in longitude is more correctly defined to be a *tithi*. But, as the true motions of the sun and the moon are not uniform, 12 degrees' difference of their longitudes will be attained in different intervals at different periods; and thus all *tithis* are not of equal duration.

Thus, to find the number of elapsed *tithis* from any new moon, we have to divide the difference of longitudes of the sun and the moon in degrees by 12; the quotient gives the whole number of *tithis* elapsed; if "r" be the remainder,  $r/12$  gives the portion of the current *tithi* elapsed (*gata*), and  $1 - r/12$  gives the portion of the current *tithi* to be elapsed (*aiśya*).

The commencement of the current *tithi* is obtained by dividing  $r/12$  by the difference of the true daily motions of the sun and the moon on the day; and the end of the *tithi* is calculated by dividing  $1 - r/12$  by that difference.

(2) Each *tithi* is divided into two *karaṇas*, and thus in a lunation of 30 *tithis* there are 60 *karaṇas*. According to *Khaṇḍa-khāḍyaka*, I, 26, and *Sūryya-siddhānta*, II, 67–69, the second half of the 14th *tithi* of the dark half of the month is called *śakuni karaṇa*, the first half of the 15th *catuspada karaṇa*, the second half is called *nāga karaṇa*; and the first half of the first *tithi* of the light half is called

*kingstughna karaṇa*. After *kingstughna* come the seven *karaṇas*, named *vava*, *vālava*, *kaulava*, *taitila*, *gara*, *vaṇij* and *viṣṭi*. These movable *karaṇas* are repeated and complete eight complete cycles up to the first half of the 14th *tithi* of the dark half of the month, after which we have the four fixed *karaṇas* stated above (Sen Gupta, *Khaṇḍa-khādyaka*, p. 30).

The names of the *Karaṇas*, and the numbers of the half lunar days to which each is applied, are given below (See Burgess, Notes under v. 69 of *Sūryya Siddhānta*, Chapter II, True Places of the Planets):—

| Names of Karaṇas      | Corresponding Half Lunar Days                 |
|-----------------------|---|
| 1. <i>Kingstughna</i> | 1st   |
| 2. <i>Vava</i>        | 2nd, 9th, 16th, 23rd, 30th, 37th, 44th, 51st  |
| 3. <i>Vālava</i>      | 3rd, 10th, 17th, 24th, 31st, 38th, 45th, 52nd |
| 4. <i>Kaulava</i>     | 4th, 11th, 18th, 25th, 32nd, 39th, 46th, 53rd |
| 5. <i>Taitila</i>     | 5th, 12th, 19th, 26th, 33rd, 40th, 47th, 54th |
| 6. <i>Gara</i>        | 6th, 13th, 20th, 27th, 34th, 41st, 48th, 55th |
| 7. <i>Vaṇij</i>       | 7th, 14th, 21st, 28th, 35th, 42nd, 49th, 56th |
| 8. <i>Viṣṭi</i>       | 8th, 15th, 22nd, 29th, 36th, 43rd, 50th, 57th |
| 9. <i>Śakuni</i>      | 58th  |
| 10. <i>Nāga</i>       | 59th  |
| 11. <i>Catuṣpada</i>  | 60th  |

The commencement and the end of a *karaṇa* are to be found as in the case of a *tithi* explained above.

(3) If the longitude of a planet were expressed in terms of *nakṣatras* and its parts (as in *Vedāṅga Jyotiṣa*), it would at once show the number of *nakṣatras* and its parts that the planet has moved through and also the part remaining of the current *nakṣatra*.

But as the longitude of a planet is expressed in signs, degrees and minutes, it is to be reduced to *nakṣatras* by dividing by  $13^{\circ} 20'$  or  $800'$  (i.e. 360 degrees/27 *nakṣatras*). The 27 *nakṣatras* are *Aświni*, *Bharanī*, *Kṛttikā*, *Rohiṇī*, *Mṛgaśirā*, *Ārdrā*, *Punarvasu*, *Puṣyā*, *Aśleṣa*, *Maghā*, *Pūrva-Phālgunī*, *Uttara-Phālgunī*, *Hastā*, *Citrā*, *Swātī*, *Viśākhā*, *Anurādhā*, *Jyesthā*, *Mūla*, *Pūrvaṣāḍā*, *Uttarāṣāḍā*, *Śravaṇā*, *Dhanisthā*, *Śatabhiṣā*, *Pūrva-Bhādrapada*, *Uttara-Bhādrapada* and *Revatī*. For a description, identification, and other details about these

*nakṣatras*, see Sen Gupta, *Khaṇḍakhādya*, pp. 150-151 and Burgess, Translation of *Sūryya-Siddhānta*, Ch. VIII.

The commencement and the end of a *nakṣatra* of a planet is determined as before.

(4) When the sum of the longitudes of the sun and the moon is equal to half a circle (180 degrees) or the whole circle (360 degrees), it is respectively called *vyatipāta* or *vaidhṛta*; the days (whether elapsed or to come) are obtained from the excess or defect of the sum (of the sun and the moon) from 6 signs or 12 signs, divided by the sum of their daily motions; the *pāta*, whether *vyatipāta* or *vaidhṛta*, takes place when the sun and the moon have the same declinations (numerically) (See Sen Gupta, *Khaṇḍakhādya*, I, 28).

Compare *Āryyabhaṭa*, *Kālakriyāpūda*, 3 :

रविशशि नक्षत्रगणाः संमिश्राश्च व्यतीपाताः

(*raviśaśinakṣatraganāṁsammiśrāśca vyatipātāḥ*).

(5) From *Sūryya Siddhānta*, II, 65, however, and Burgess's Notes, a *yoga* is the period, of variable length, during which the joint-motion in longitude of the sun and the moon amounts to 360 deg./27, there being thus altogether 27 *yogas*. The names of the 27 *yogas* are as follows :—

|                     |                      |                     |
|---------------------|----------------------|---------------------|
| 1. <i>Viṣkambha</i> | 10. <i>Gaṇḍa</i>     | 19. <i>Parigha</i>  |
| 2. <i>Prīti</i>     | 11. <i>Vṛddhi</i>    | 20. <i>Śiva</i>     |
| 3. <i>Āyusmant</i>  | 12. <i>Dhruva</i>    | 22. <i>Sādhya</i>   |
| 4. <i>Saubhāgya</i> | 13. <i>Vyāghāta</i>  | 21. <i>Siddha</i>   |
| 5. <i>Śobhana</i>   | 14. <i>Harṣaṇa</i>   | 23. <i>Subha</i>    |
| 6. <i>Atigaṇḍa</i>  | 15. <i>Vajra</i>     | 24. <i>Śukla</i>    |
| 7. <i>Sukarman</i>  | 16. <i>Siddhi</i>    | 25. <i>Brahman</i>  |
| 8. <i>Dhṛti</i>     | 17. <i>Vyatipāta</i> | 26. <i>Indra</i>    |
| 9. <i>Śūla</i>      | 18. <i>Varīyas</i>   | 27. <i>Vaidhṛti</i> |

There is also in use in India another system of *yogas*, twenty-eight in number, having for the most part different names from these, and governed by other rules in their succession.

The commencement and the end of a *yoga* are determined as before.

## (6) Illustration.—

|                            |                                 |
|----------------------------|---------------------------------|
| True longitude of the moon | $8^s 18^\circ 2'$               |
| True longitude of the sun  | $8^s 19^\circ 31'$              |
| Difference of Longitudes   | $11^s 28^\circ 31'$ or 21, 511' |

Dividing by 12 degrees or 720'

we get 29 *tithis* elapsed, and, of the current *tithi*,

631/720 parts elapsed and 89/720 to be elapsed.

True motion of the moon on the day is 841' and of the sun 61'; their difference is 780' and their sum 902'.

Thus the commencement of the current *tithi* was  $(631 \times 60) / (20 \times 780)$  *ghaṭikās* earlier, and the end of the current *tithi* will be  $(89 \times 60) / (720 \times 780)$  *ghaṭikās* later, there being 60 *ghaṭikās* in a day.

Again, sum of the longitudes of the sun and the moon is  $5^s 7^\circ 33'$  or 9, 453'. Dividing by 800', we get 11 *yogas* elapsed, and, of the current *yoga*, 653/800 parts elapsed and 147/800 parts to be elapsed. Now, 902' being the sum of the motions of the sun and the moon in a day of 60 *ghaṭikās*, the commencement of the current *yoga* was  $(653 \times 60) / (800 \times 902)$  *ghaṭikās* earlier, and the end of the current *yoga* will be  $(147 \times 60) / (800 \times 902)$  *ghaṭikās* later.

*Here ends Prakīrṇādhikāra.*

## Section IV—TRIPRAŚNĀDHİKĀRA

(Dealing with the Three Problems relating to Diurnal Motion)

This Section is styled the “section of three inquiries (*praśnas*)”. This means that it is intended by the teacher as a reply to his pupil's inquiries respecting the three subjects of direction (*diś*), place (*deśa*), and time (*kāla*).\*

The celestial bodies are scattered round the heavens. It looks as if they lie on a sphere with the observer as centre, but it is really not so. The distances of the various heavenly bodies from the observer are not the same. The apparent distances between two heavenly bodies is measured by the angle they subtend at the eye of the observer, which may very well be measured by the arcs on a sphere constructed with the observer in the centre and with any assumed radius. This sphere is called the celestial sphere (*Khagola*).

It is observed that the heavenly bodies and thus the celestial sphere on which they are depicted have an apparent rotation from east to west. This is really due to the diurnal rotation of the Earth on its axis from west to east during the approximate period of 23 hours 56 minutes and 4 seconds of mean time, which period is usually called the sidereal day (*nākṣatra* day).

The sun is observed to have a small motion of 59' 8" amongst the stars from west to east completing a sidereal revolution of 360° in approximately  $365\frac{1}{4}$  days. This path of the sun amongst the stars is a great circle and is called the Ecliptic (*apamaṇḍala* or *krāntimaṇḍala*). The mean interval between two consecutive transits of the sun or between two consecutive sunrises is called a natural or civil day (*sāvana* day in Indian astronomy), and a civil day is therefore slightly greater than the sidereal day (by 3 min. 56 sec. mean time); a civil day is divided into 24 hours mean time.

In the diurnal rotation of the Earth every point of the terrestrial sphere rotates excepting the end points of the axis of rotation, and the two points of the heavens or the celestial sphere obtained by the intersection of the axis of rotation will be observed to be steady and having no apparent motion. These two points of the heavens or the celestial sphere are called Poles (*dhruva-tārās*)—the North Pole and the South Pole. The great circle midway between the Poles is called the Equator (*Viṣvavmanḍala*). The interceptions of the Equator and

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\*Burgess, *Sūr. Sid.*, II, 6g, Note.



the Ecliptic are called the First Point of Aries and the First Point of Libra. The Ecliptic goes to the north of the Equator from the First Point of Aries, and to the south of the Equator from the First Point of Libra.

On account of the diurnal motion of the Earth, every heavenly body apparently rotates round the Poles in circles parallel to the Equator. These circles are called the daily circles (*svāhoratra-maṇḍala*) of the heavenly bodies.

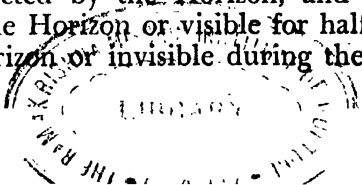
If a tangent plane be drawn to the Earth at the station of the Observer, it cuts the celestial sphere and the heavens into two parts; the part above the plane is visible to the Observer, while the part below is invisible owing to the opaqueness of the Earth. This plane is called the Horizon (*kṣitija*). A heavenly body is said to rise where its daily circle cuts the Horizon in the east, and is said to set where its daily circle cuts the Horizon in the west.

The point of the heavens or the celestial sphere above the head of the Observer is called the Zenith (*Kha-madhya*) and the point diametrically opposite is called the Nadir. The Zenith and the Nadir are the two Poles of the Horizon.

A great circle of the celestial sphere perpendicular to the Horizon, which passes through the following points fixed for the Observer's station, namely, the North Pole and the South Pole, the Zenith and the Nadir, the North Point and the South Point, and the points of intersection with the celestial Equator, is called the Meridian (*madhyarekhā*). The altitude of the North Pole (in the northern hemisphere) over the Horizon is equal to the terrestrial latitude of the Observer's station.

A great circle perpendicular to the Horizon and the Meridian cutting the Horizon in the East and West Points is called the Prime Vertical (*Samamaṇḍala*). The Equator also cuts the horizon in the east and west points. The great circle passing through the North Pole and the South Pole and the East and West Points is called the *Un-maṇḍala* or Six-O'Clock Circle, because the sun in his daily circle reaches this great circle at 6-o'clock mean time.

When the Observer's station is on the terrestrial equator, his latitude and therefore the altitude of the Pole is Zero; the Poles are therefore on the Horizon, and the Celestial Equator and the daily circles of the heavenly bodies are perpendicular to the Horizon, and every daily circle is bisected by the Horizon, and therefore every heavenly body is above the Horizon or visible for half the mean civil day and is below the Horizon or invisible during the remaining half of the mean civil day.



















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